

# SERVICE MANUAL

## R-725/RDS · AV-725 AUDIO/VIDEO PRO-LOGIC RECEIVER



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\* A PRODUCT OF AV-725 OMMITS ONLY TUNER PART TO R-725

 **Sherwood®**

## SAFETY PRECAUTIONS

### WARNING

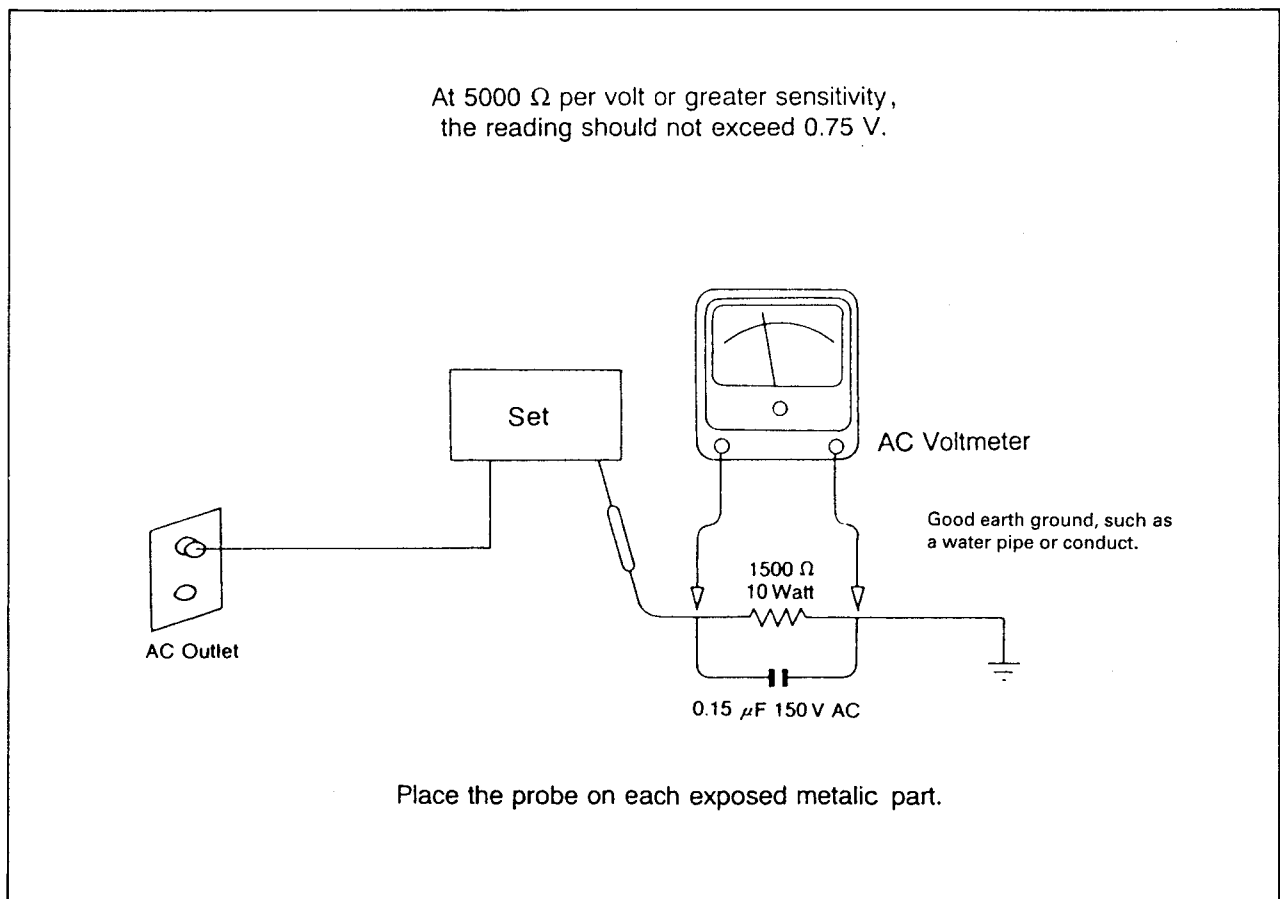
Before servicing this unit, familiarize yourself with the following precautions:

1. Many electrical and mechanical parts in this chassis have special safety characteristics that often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements: electrical components having such features are identified by ! in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

2. Before returning the set to the customer, always do an AC leakage current check on the

exposed metal parts of the cabinet, such as terminals, screw heads, and metal overlays, to be sure the set is safe to operate danger of electrical shock. Plug the AC line cord directly into a 120 V AC outlet (120 V AC version only). (Do not use a line isolation transformer during this check.) Be sure your AC voltmeter has a sensitivity of 5000  $\Omega$  per volt or greater. Then connect a 1500  $\Omega$  10 watt resistor, paralleled by a 0.15  $\mu$ F 150 V AC capacitor, between a known good earth ground (such as a water pipe, or conduit) and the exposed metallic is parts, one at a time. Measure the AC voltage across the combination of a 1500  $\Omega$  resistor and a 0.15  $\mu$ F capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75V RMS. This corresponds to 0.2 mA AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



## SPECIFICATIONS

### FRONT AMP SECTION

Measuring methods are based on IHF and IEC standard 268-3.

Measurements conditions, unless otherwise noted :

\* Output resistive load : 8 ohms/Both channel driven

\* Tone(Bass, Treble), Balance, EQ control : Center Position, Other SW's : OFF.

\* Nominal input level : 5 mV for MM, 0.5 mV for MC, 500 mV for general purpose inputs.

\* Power figures should be kept minimum 10 min. between 15 and 35 °C.

\* Terminator : 100 ohm for MC, 1 kohm for MM and general purpose inputs.

\* Filter : IHF-A filter

\* R/O : Rated Output

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT	NOMINAL
1	Input Sensitivity	AUX	1 kHz		mV	200 ± 50	200 ± 30
		MM	1 kHz		mV	2.5 ± 0.5	2.5 ± 0.3
2	Channel Balance	AUX	1 kHz	R/O TO -40dB	dB	± 3	± 2
			1 kHz	-40 TO -60dB	dB	± 6	± 4
3	Residual Noise	AUX	1 kHz	VOL min.	mV	≤ 1	≤ 7
4	Total Harmonic Distortion	AUX (500mV)	20Hz	R/O 1W	%	≤ 0.2	≤ 0.09
			1kHz	"	%	≤ 0.2	≤ 0.09
			20Hz	"	%	≤ 0.3	≤ 0.2
5	Continuous Average Power at (0.2)% THD	AUX	20Hz	8 ohms	W	130	132
			1kHz	"	W	130	132
			20Hz	"	W	130	132
6	IMD(SMPTE)	AUX(500mV)	60Hz=4	R/O	%	≤ 0.2	≤ 0.09
			7kHz=1	1W	%	≤ 0.2	≤ 0.09
7	S/N RATIO, IHF-A FILTER	AUX(500mV)	1kHz	R/O	dB	≥ 90	≥ 93
		MM(5mV)	1kHz	R/O	dB	≥ 68	≥ 72
8	Channel Separation	AUX(500mV)	100Hz	R/O -3dB	dB	≥ 45	≥ 55
			1kHz	"	dB	≥ 45	≥ 55
			10kHz	"	dB	≥ 40	≥ 45
9	Function Crosstalk	CD → AUX	1/10 kHz	"	dB	≥ 60/40	≥ 65/45
		AUX → MM	1/10 kHz	"	dB	≥ 60/40	≥ 65/45
		MM → AUX	1/10 kHz	"	dB	≥ 60/40	≥ 65/45
10	Frequency Response (-3dB)	AUX(500mV)		1W	Hz~kHz	20~50	10~60
11	Tone Control, ± 10dB	AUX	100Hz	1W	dB	± 10 ± 2	± 10 ± 1
			10kHz	1W	dB	± 10 ± 2	± 10 ± 1
12	Subwoofer Out sub-vol +6dB	AUX(200mV)	1kHz	M-Vol Max	V	2 ± 0.5	2 ± 0.3
13	Phono Equalization	PHONO	100Hz	TAPE OUT	dB	RIAA ± 1.5	RIAA ± 1
			10kHz	"	dB	RIAA ± 1.5	RIAA ± 1
14	Input Overload at 0.5% THD	MM	1kHz	TAPE OUT	mV	≥ 120	≥ 140
15	DIN Power at 1% THD	AUX	1kHz	R/O	W	≥ 135	≥ 140
16	Muting Level	AUX(500mV)	1kHz	R/O	dB	≥ 60	≥ 65

### REAR AMP SECTION

Measurements conditions : Input level 300mV, Rear level max., Master volume adj. delay time 20ms

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT	NOMINAL
1	Power Output 0.7% THD	AUX	1kHz	8ohms	W	≥ 50	≥ 52
2	Total Harmonic Distortion	AUX	1kHz	1W	%	≤ 1	≤ 0.7
3	S/N Ratio DOLBY	AUX		R/O	dB	≥ 55	≥ 63
	IHF-A Filter STADIUM	AUX		"	dB	≥ 55	≥ 63
	THEATER	AUX		"	dB	≥ 55	≥ 63
	HALL	AUX		"	dB	≥ 50	≥ 63
4	Frequency Response at ± 3 dB ( ONLY DOLBY)	AUX	1kHz	1W	Hz~kHz	100~6	80~7

## ☛ CENTER AMP SECTION

Measurements conditions : Input level 300mV, WIDE mode Center level max., Master volume adj.

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT	NOMINAL
1	Power Output at 0.3% THD	AUX	1kHz	8ohms	W	$\geq 130$	$\geq 132$
2	Total Harmonic Distortion	AUX	1kHz	1W	%	$\leq 0.3$	$\leq 0.2$
3	S/N Ratio, IHF-A Filter	AUX		R/O	dB	$\geq 73$	$\geq 78$
4	Frequency Response						
	DOLBY MODE    NORMAL	AUX		1W	Hz~kHz	120~20	100~30
	WIDE	AUX		1W	Hz~kHz	60~20	40~30

## ☛ VIDEO SECTION

NO	DESCRIPTION	INPUT	FREQ.	REMARK	UNIT	LIMIT	NOMINAL
1	Output Level at 75ohms	VCR1(1Vp-p)	1MHz		Vp-p	$1 \pm 0.2$	$1 \pm 0.1$
2	Frequency Response	"	1MHz		Hz~MHz	DC~6	DC~6.3
3	S/N Ratio	"	1MHz		dB	40	45
4	Crosstalk	"	1MHz		dB	40	45

## ☛ AM SECTION

Measuring methods in conformity with IEC standard 315

Measurements condition AM - MW

\* Radio frequency = 1000/999kHz, Audio frequency = 400Hz

\* LM : Radio frequency = 207kHz, Audio Frequency = 400Hz

\* Reference level = 5 mV/m, 10 mV/m on 50 ohms

\* Test point : MW TP1=594 kHz, TP2=999 kHz, TP3=1404 kHz (USA Version)

\* Test point : MW TP1=600 kHz, TP2=1000 kHz, TP3=1400 kHz (Europe Version)

\* Test point : LW TP1=162 kHz, TP2=207 kHz, TP3=1404 kHz (USA Version)

\* Test point : LW TP1=600 kHz, TP2=1000 kHz, TP3=1400 kHz (Europe Version)

NO	DESCRIPTION		VERSION	UNIT	LIMIT	NOMINAL		
1	Tuning Cover Range	LOW~HIGH	USA	kHz	520~1710			
			EUROPE	kHz	522~1611			
			USA	kHz	10			
			EUROPE	kHz	9			
2	Usable Sensitivity	MW	TP1	USA	uV/m	≤800	≤500	
				TP2	uV/m	≤800	≤500	
				TP3	uV/m	≤800	≤500	
		MW	TP1	EUROPE	uV/m	≤800	≤500	
					TP2	uV/m	≤800	≤500
					TP3	uV/m	≤800	≤500
3	S/N Ratio	MW	USA	dB	≥35	≥40		
			EUROPE	dB	≥40	≥45		
4	Total Harmonic Distortion		USA	%	≤2	≤1.0		
			EUROPE	%	≤1.5	≤1.0		
5	Over Load Distortion 5 mV 80 % MOD			%	≤10	≤5		
6	Frequency Response at - 6 dB	MW		Hz	100~2 K	80~2.2K		
7	Selectivity 10 kHz/ 9 kHz	MW		dB	≥20	≥25		
8	AGC Figure of Merit			dB	≥50	≥55		
9	Image Rejection	MW = TP3		dB	≥30	≥35		
10	Whistle Modulation Input=1mV/m 21F			%	≤15	≤10		
11	Auto Stop Level	MW		uV/m	800(±6dB)	800(±5dB)		
12	Tuned Level	MW		uV/m	800(±6dB)	800(±5dB)		
13	Output Level			mV	165±50	165±30		

## FM SECTION

Measuring methods in conformity with IEC standard 315

Measurements condition FM : Radio frequency = 98.1 MHz, Audio frequency = 1kHz

\* Reference level = 1mV on ( 75 ohms, 300 ohms )

\* Deviation : MONO =  $\pm 75\text{kHz}$ , Stereo =  $\pm 67.5\text{kHz} \pm 7.5\text{kHz}$  (USA Version)

MONO =  $\pm 40\text{kHz}$ , Stereo =  $\pm 40\text{kHz} \pm 7.5\text{kHz}$  (Europe Version)

\* Test Point : TP 1 = 90.1MHz, TP2 = 98.1MHz, TP 3 = 106.1MHz

\* Filter = B.P.F at STEREO

NO	DESCRIPTION		VERSION	UNIT	LIMIT	NOMINAL
1	Tuning Renge	LOW~HIGH	USA	MHz	87.5 ~ 107.9	
	Step	AUTO/Man	Europe USA Europe	kHz	87.5 ~ 108.0 200 100/50	
2	Usable Sensitivity S/N = 30 dB	TP 1	USA	dBf	≤ 17.2	≤ 14.2
		TP 2		dBf	≤ 17.2	≤ 14.2
		TP 3		dBf	≤ 17.2	≤ 14.2
	S/N = 26 dB	TP 1	Europe	dBf	≤ 20.2	≤ 17.2
		TP 2		dBf	≤ 20.2	≤ 17.2
		TP 3		dBf	≤ 20.2	≤ 17.2
3	Full Limiting Sense	Output = -3 dB	USA	dBf	≤ 15.2	≤ 12.2
			Europe	dBf	≤ 20.2	≤ 17.2
4	Auto Stop Level			dBf	31.2±5	31.2±3
5	Auto Error		USA	kHz	±20	±25
			Europe	kHz	±15	±20
6	S/N Ratio	MONO		dB	≥64	≥68
		STEREO		dB	≥60	≥64
7	Total Harmonic Distortion	MONO		%	≤0.5	≤0.3
		STEREO		%	≤0.8	≤0.5
8	50 dB Quietion Sensitivity	MONO	USA	dBf	≤23.2	≤20.2
		STEREO		dBf	≤48.3	≤45.3
	46 dB Quietion Sensitivity	MONO	Europe	dBf	≤23.2	≤20.2
		STEREO		dBf	≤48.3	≤45.3
9	Channel Separation	100 Hz		dB	≥35	≥40
		1 kHz		dB	≥40	≥45
		10 kHz		dB	≥30	≥35
10	Frequency Response at ±1.5 dB			Hz	20~12.5	10~14
11	Spurious Response		USA	dB	≥70	≥80
			Europe	dB	≥80	≥90
12	IF Rejection	TP 1		dB	≥70	≥80
13	Image Rejection	TP 3	USA	dB	≥60	≥65
			Europe	dB	≥70	≥80
14	AM rejection Ratio			dB	≥50	≥55
15	Capture Ratio			dB	≤2.5	≤2
16	Alternative CH Selectivity ±400 kHz			dB	≥45	≥50
17	Output Level	MONO		mV	500±150	500±100
18	RDS Sensitivity		Europe	dBf	≤40.2	≤38.2

## GENERAL

Power consumption ----- USA/Canada : 4.5A, Europe : 1 100W

Power Supplies ----- USA/Canada : AC 120V, 60Hz

Europe : AC 230V, 50Hz

Dimensions (W×H×D) ----- 440×140×380 mm

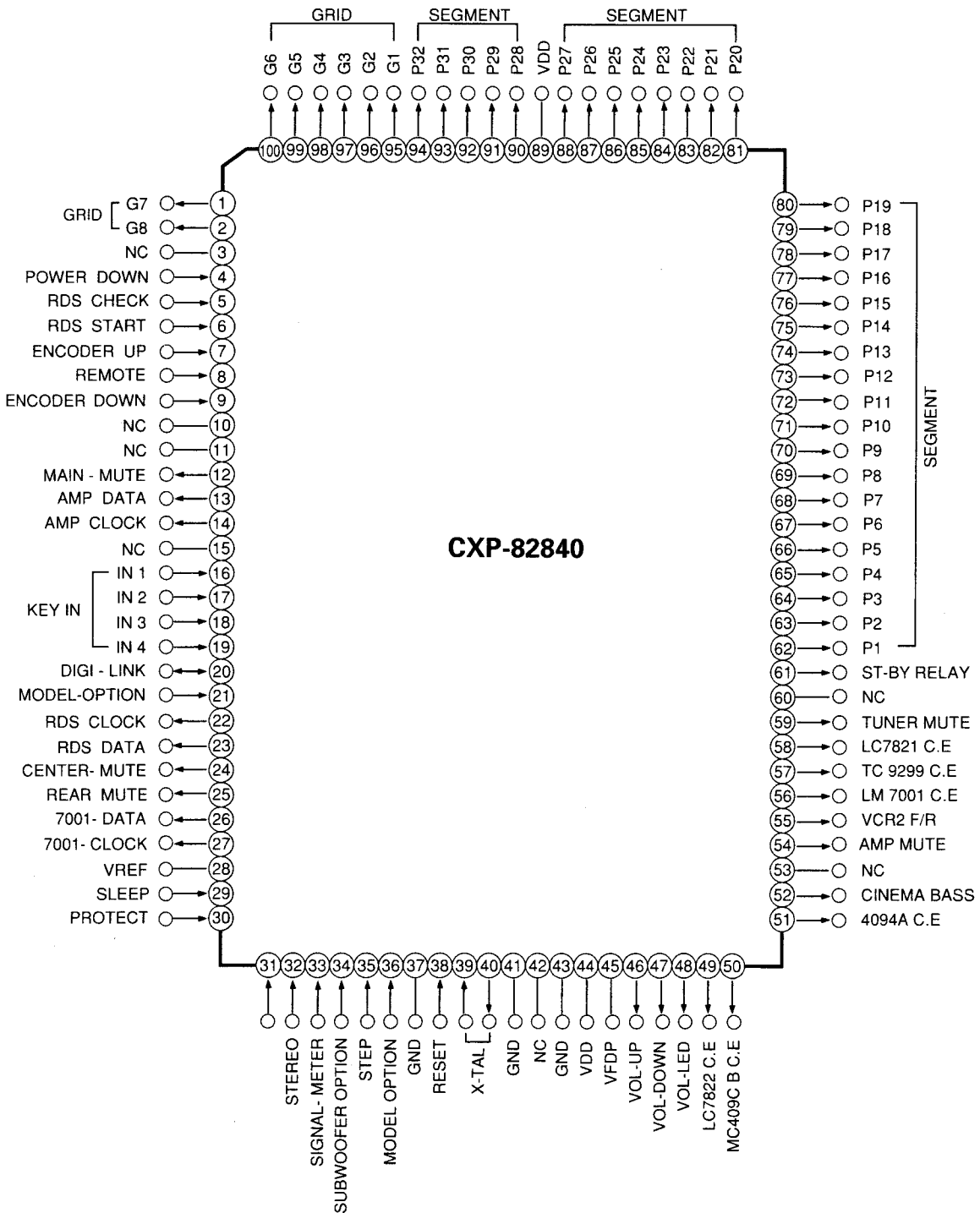
17-5/16×5-1/2×14-15/16 inches

Weight (Net)- ----- 15.9 kg (35.3 lbs)

# CIRCUIT DESCRIPTION

IC301 : CXP82840

## 1. Pin Description



## 2. Input/Output Terminal Functions

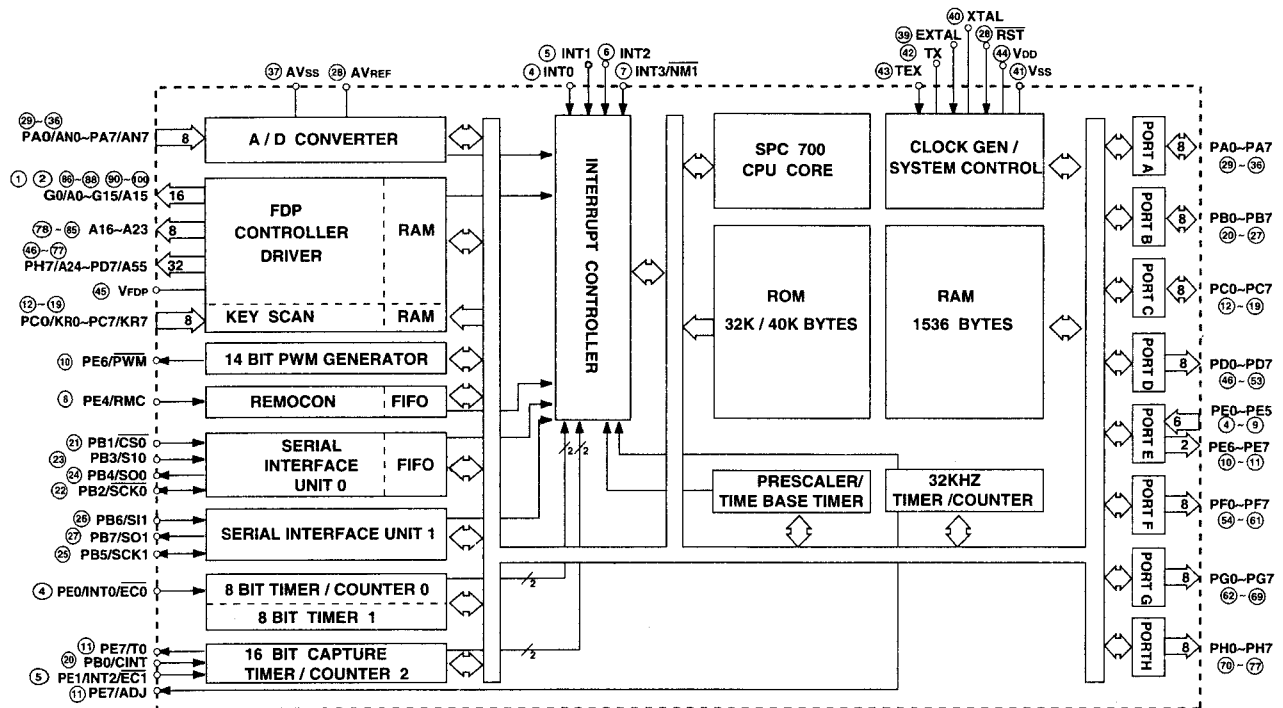
Pin No.	Symbol	Description
1/2	G2/G1	Grid signal output for FIP.
3	NC	Not used.
4	POWER DOWN	Input for power down(Active low).
5	RDS CHECK	Input for RDS check.
6	RDS START	Input for RDS start.
7/9	ENC UP/DOWN	Input for Encoder up and down.  <div style="text-align: center;"> <div style="display: inline-block; width: 45%;"> <p>( C W )</p> </div> <div style="display: inline-block; width: 45%;"> <p>( C C W )</p> </div> </div>
8	REMOCON	Input for remote control signal. (Active low).
10/11	NC	Not used.
12	MAIN MUTE	Output for main mute. Output is low level under the following conditions. <ol style="list-style-type: none"> <li>1. When power is turned on or off.</li> <li>2. When function is changed.</li> <li>3. When MONO or STEREO is changed.</li> <li>4. When Low level is inputted to "PROTECTION" port of CPU.</li> <li>5. When mute signal is received from the commander.</li> </ol>
13	DATA	Output datasignal to MC14094, LC7821, LC7822 and TC9299.
14	CLOCK	Output clock signal to MC14094, LC7821, LC7822 and TC9299.
15	NC	Not used.
16~19	KEY IN1~4	Input data of IN1~IN4 for key scan.
20	DIGI LINK	Input/Output for controlling digi-link    .
21	MODEL OPTION	Input for selecting Model. ('L'→R525, 'H'→R-725, AV725)
22	RDS CLK	RDS clock signal input for TDA7330B. (This input is used only for R525RDS)
23	RDS DATA	RDS data signal input for TDA7330B. (This input is used only for R525RDS)
24	C-MUTE	Output for center mute. Output is low level under the following conditions. <ol style="list-style-type: none"> <li>1. When power is turned on or off.</li> <li>2. When center mode is on or off.</li> <li>3. When center mode is switched.</li> </ol>

Pin No.	Symbol	Description																
24	C-MUTE	4. When test tone mode is on or off, When the channels is changed the test tone mode. 5. When Low level is inputed to "PROTECTION" of CPU. 6. When mute signal is received from the commander.																
25	S-MUTE	Output for surround mute. Output is low level under the following conditions. 1. When power is turned on or off. 2. When surround mode is on or off. 3. When test tone mode is on or off, When the channels is changed the test tone mode. 4. When delay time is changed. 5. When Low level is inputed to "PROTECTION" of CPU. 6. When mute signal is received from the commander.																
26/27	7001-DATA/CLK	DATA/CLOCK Singnal output for LM7001.																
28	AV REF	Referance voltage of analog A/D converter.																
29	SLEEP OPTION	Input for selecting function. ('H'→St-by, 'L'→Sleep.)																
30	PROTECTION	Signal input for protection wher low level is inputed, it ischinged to STAND-BY mode.																
31	GND	Ground.																
32	STEREO	Input for lighting the ST(Stereo), Inaicator(Active low).																
33	S-METER	Input signal level of tuner.																
34	SUBWOOFER OPTION	Inplut for selecting subwoofer, when high level is inputed subwoofer volume is operates.																
35	STEP	According to region, input for selecting the frequency bands and steps for FM and AM Settings are as follows <table><tr><th>REGION</th><th>FREQUENCY BAND</th><th>STEP</th><th>PIN35(IC301)</th></tr><tr><td>USA/ CANADA</td><td>FM: 87.5 ~ 107.9 MHz AM: 520 ~ 1710 kHz</td><td>200 kHz 10 kHz</td><td>0 V</td></tr><tr><td>EUROPE</td><td>FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz</td><td>50 kHz 9 kHz</td><td>1 V</td></tr><tr><td>KOREA</td><td>FM: 87.5 ~ 107.9 MHz AM: 522 ~ 1611 kHz</td><td>200 kHz 9 kHz</td><td>2 V</td></tr></table>	REGION	FREQUENCY BAND	STEP	PIN35(IC301)	USA/ CANADA	FM: 87.5 ~ 107.9 MHz AM: 520 ~ 1710 kHz	200 kHz 10 kHz	0 V	EUROPE	FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz	50 kHz 9 kHz	1 V	KOREA	FM: 87.5 ~ 107.9 MHz AM: 522 ~ 1611 kHz	200 kHz 9 kHz	2 V
REGION	FREQUENCY BAND	STEP	PIN35(IC301)															
USA/ CANADA	FM: 87.5 ~ 107.9 MHz AM: 520 ~ 1710 kHz	200 kHz 10 kHz	0 V															
EUROPE	FM: 87.5 ~ 108 MHz AM: 522 ~ 1611 kHz	50 kHz 9 kHz	1 V															
KOREA	FM: 87.5 ~ 107.9 MHz AM: 522 ~ 1611 kHz	200 kHz 9 kHz	2 V															
36	SET OPTION	Input for selecting set. (5V→RDS Receiver, 2.5V→Amp, 0V→Receiver)																
37	ADGND	Ground																
38	RESET	Input for resetting CPU. (Active high)																
39/40	X-TAL I/O	Input/Output for cystal oscillator.																
41	GND	Ground.																



Pin No.	Symbol	Description
42	NC	Not used.
43	GND	Ground.
44	VDD	Power supply of CPU(+5V).
45	VFL	-30V Power supply for FIP.
46/47	VOL UP/DOWN	Output data for Master volume control.
48	VOL LED	Output signal for volume LED.
49	CE(7822)	LC7822 chip enable (Surround).
50	CE(4094)	14094 chip enable (Surround).
51	CE(4094)	14094 chip enable (Video).
52	CINEMA-BASS	Output signal for Cinema-Bass function (High Active).
53	NC	Not used.
54	AMP-MUTE	When the power is on, control data output is high after 3 seconds. When the power is off, control data output is "L".
55	VCR2 OPTION	Output signal for VCR2 Inputs. ('H'-Front, 'L'-Rear)
56	CE(7001)	LM7001 chip enable.
57	CE(9299)	TC9299 chip enable. (Surr-Subwoofer Trim)
58	CE(7821)	LC7821 chip enable. (Function select)
59	T-MUTE	Output for tuner mute. Output is high level under the following conditions. 1. When power is turned on or off. 2. When tuner band is changed. 3. When tuning up or down button is pressed. 4. When preset button is pressed. 5. When displayed preset number is changed during memory scan. 6. When Low lever is inputed to "PROTECTION" of CPU. 7. When mute signal is received from the commander.
60	NC	Not used.
61	ST-BY	Output for driving power relay. (Active high)
62-70	S1-S9	Segment 1 - Segment 9.
71-81	S10-S20	Segment 10, Key check 11 - Segment 20, Key check 1.
82-88	S21-S27	Segment 21 - Segment 27.
89	VDD	+5V power supply.
90-94	S28 - S32	Segment 28 - Segment 32.
95-100	G8-G3	Grid 1 - Grid 5.

### 3. Block Diagram



### 4. Key Matrix

	Key Scan 2 Pin 80	Key Scan 3 Pin 79	Key Scan 4 Pin 78	Key Scan 5 Pin 77	Key Scan 6 Pin 76	Key Scan 7 Pin 75	Key Scan 8 Pin 74	Key Scan 9 Pin 73	Key Scan10 Pin 72	Key Scan11 Pin 71
Key in 1, Pin 16	Station Name	Center Level Down	Band	Tuning up	Memory Enter	7	4	Stereo	Search	Sleep
Key in 2, Pin 17	VCR 1 REC	Center Level Up	PTY Select	FM Mode	Tuning Down	8	3	Pro Logic	EON. TA	OFF
Key in 3, Pin 18	Tape2, Monitor	—	Stadium	Rear Level Down	0	9	2	Hall	EON. PTY	1
Key in 4, Pin 19	Video Labels	Center Mode	Cinema Bass	Rear Level Up	Frequency	6	5	Theater	Display	St-by

# ALIGNMENT PROCEDURES

## TUNER

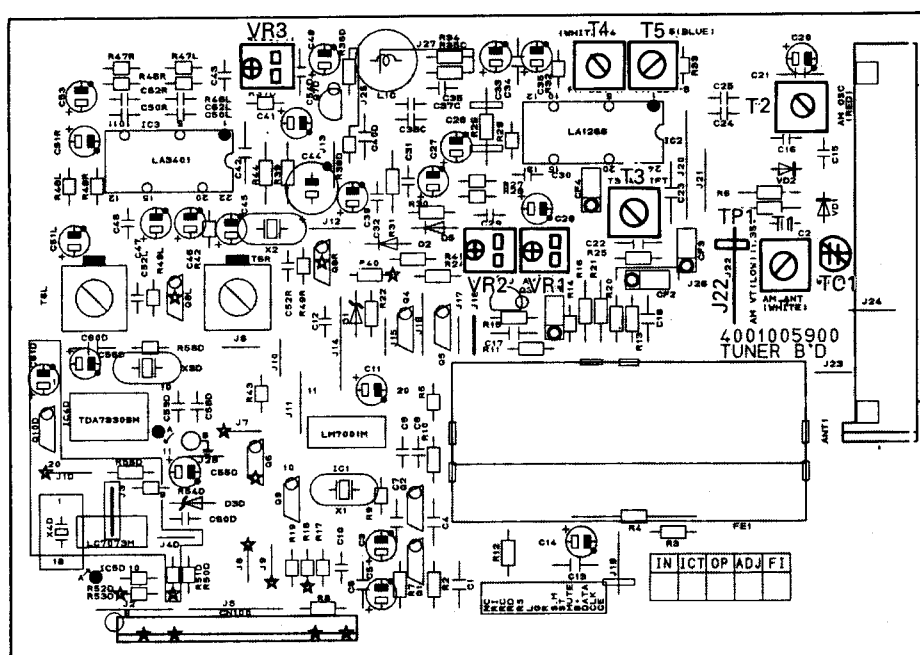
### 1. Equipment Required

- AM Standard Signal Generator (AM SSG)
- Oscilloscope
- AC Voltmeter
- FM Standard Signal Generator (FM SSG)
- Stereo Modulator
- Audio Generator
- Distortion Meter
- DC Voltmeter
- Frequency Counter

**Note :** Disconnect external FM antenna prior to alignment.

### 2. Alignment

#### 2-1. Alignment and Test Point



#### 2-2. AM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator modulation : 30 %
- RF signal frequency : 400 Hz
- Switch : Press the BAND button to AM

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	Tuning Voltage	520kHz (522kHz)	520kHz 1) (522kHz)	DC Volt meter to J22 (TP1)	T2 AM OSC(R)	DC1.32V±1.35✓
2	RF Tuning	600kHz (594kHz)	600kHz 1) (594kHz)	AC voltmeter and oscilloscope to speaker terminal of L or R channel	T1 MW ANT(W)	Maximize audio output
		1400kHz (1404kHz)	1400kHz 2) (1404kHz)		TC1	
* Feed signal should be fed to loop antenna through the test loop antenna 60 cm distant from the appliance.						
* Repeat the step 1) and 2) until no further improvement occurs.						

3	IF	1000kHz (999kHz)	1000kHz (999kHz)	Ac voltmeter and oscilloscope to speaker terminal of L or R channel	T3 AM IFT	Maximize audio output
4	Tuned Level	1000kHz (999kHz) 800 $\mu$ V/m	1000kHz (999kHz)		VR1	"Tuned" flag in the FL display light on

### 3-3. FM Alignment

- Output of signal generator should not be greater than necessary to obtain an optimum output reading.
- Signal generator deviation : USA/Canada/Korea : 75kHz. Europe : 40kHz
- RF signal frequency : 1 kHz
- Switch : Press the BAND button to FM and the FM MODE button to MONO

Step	Subject	Signal Generator Frequency	Set Frequency Setting	Equipment Connection	Adjustment Point	Adjust for
1	Tuning Band Width	98.1MHz (98MHz)	98.1MHz (98MHz)	DC Volt meter to R26(PCB1)	T4	Zero reading on DC Volt meter
2	THD	98.1MHz (98MHz)	98.1MHz (98MHz)	Distortion meter to TAPE OUT jack of L or R channel	T5	Minimize distortion
3	Tuned Level	98.1MHz (98MHz) SSG output level : 10 $\mu$ V/m	98.1MHz (98MHz)		VR2	"Tuned" flag in the FL display light on

### 3-4. MPX Alignment

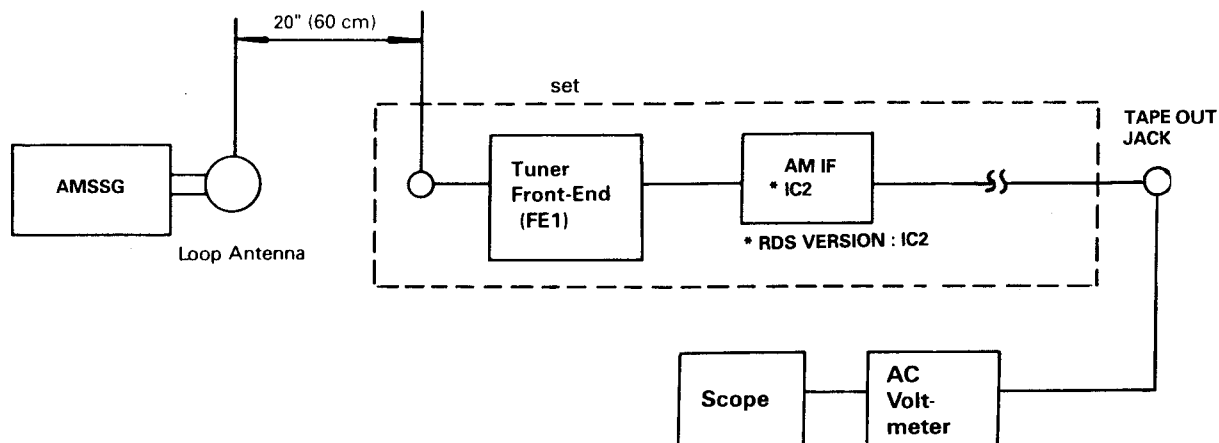
- Signal generator frequency : 98 MHz
- Signal generator deviation : USA : 75kHz. Europe : 40kHz
- RF signal frequency : 1 kHz
- Signal generator output level : 1000  $\mu$ V/m
- Connect signal generator to FM antenna terminal through FM dummy antenna (75  $\Omega$ )
- Switch : Press the BAND button to FM and the FM MODE button to STEREO

Step	Subject	19 kHz Modulation Level	Signal Generator Setting	Equipment Connection	Adjustment Point	Adjust for
1	Seperation R $\rightarrow$ L	8 % Modulation	Pilot on	AC voltmeter to speaker terminal of R channel	VR3	Set AC voltmeter to 0 dB
				AC voltmeter to speaker terminal of L channel		AC voltmeter reading should be at least 40 dB below
2	Seperation L $\rightarrow$ R	8 % Modulation	Pilot on	AC voltmeter to speaker terminal of L channel	VR3	Set AC voltmeter to 0 dB
				AC voltmeter to speaker terminal of R channel		AC voltmeter reading should be at least 40 dB below

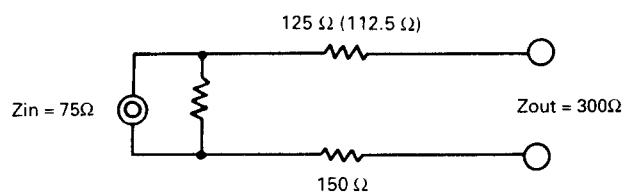
If you could not obtain -40 dB readings in steps 1 and 2, readjust VR3 until you obtain -40 dB readings.  
Nominal is -45 dB. (Europe: Nominal -42 dB, Limit -37 dB)

## 4. Equipment Connection

### 4-1. AM Alignment Connection

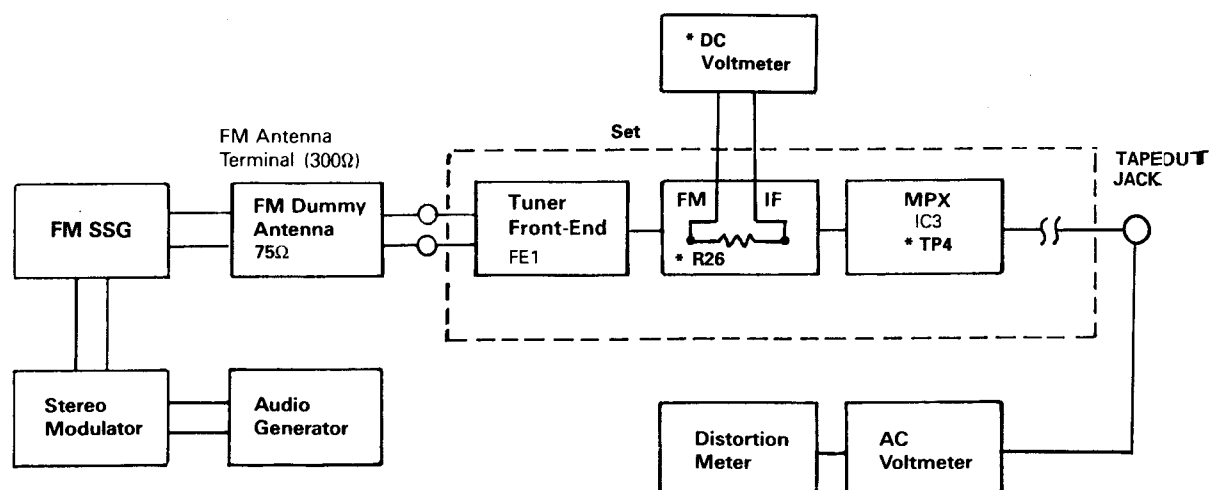


### 4-2. FM Dummy Antenna



FM Dummy Antenna to 300 $\Omega$  Antenna terminal of system.

### 4-3. FM RF/IF and MPX Alignment Connection



## TROUBLESHOOTING

Symptom	Cause and Remedy
Receiver inoperative. (FL indicator does not light.)	A) Faulty AC power cord. Replace. B) Defective the power switch. Replace. C) Broken wire in the power transformer. Replace. D) Blown fuse. Replace the fuse.
Fuse blows when power is turned on.	A) Defective power transformer. Replace. B) Short on the primary or secondary of the transformer circuitry. Repair the short. C) Damaged rectifier D105-D112 or damaged transistor Q215L/R/C/SL, Q216L/R/C/SL. D) Short circuit in the amplifier circuit. Repair the shorted component(s) in the amplifier circuit.
Power indicator lights but no sound from both channels.	A) Defective in transistor Q215L/R, Q216L/R on the AMP302 Board. B) Pulled out of correct speaker switch.
One channel does not work when volume is at maximum with a test signal applied to the center terminal of volume control of the dead channel.	A) Defective in transistor Q215L/R or Q216L/R on the AMP302 Board. Replace the defect. B) Break in copper foil of printed circuit board. Repair the defect. C) Short in speaker output terminal. Repair or replace.
Speaker works normally but headphones inoperative.	A) Headphone plug does not match with jack. Replace the jack. B) Defective resistor R701L/R. Replace.
FM inoperative	A) Defective front-end (FE). Replace. B) Defective FM switch. Replace the switch. C) Defective transistor Q3 and ICS (IC2, IC3). Replace the defective transistor or IC(s). D) Defective coil T4, T5. Replace the coil(s). E) Defective lead-in. Repair or replace the lead-in. F) Ceramic filters CF1, CF3 defective. Replace the defective ceramic filter(s).
Poor multiplex separation.	A) Improper adjustment. Readjust VR3. B) IC3 defective. Replace. C) Variable resistor VR3 defective. Replace the variable resistor.
FM volume is insufficient.	A) If volume from both L and R channels is not loud enough : Front end section defective. Faulty IC2, Coil T4 or T5. If sound of one channel is not loud enough : Defective VR3.

Symptom	Cause and Remedy
STEREO indicator does not light.	A) Defective indicator in FL. Replace. B) Improper adjustment of VR2 of tuner board. Make readjustment. C) Defective IC2. Replace the defective component.
FM Mono has no effect.	A) Defective FM MODE switch. Replace.
AM inoperative.	A) Damaged IC2 of tuner Board. Replace. B) Defective T1, T2, T3 or CF4 of Tuner Board. Replace the defective component(s). D) Defective varicap diodes VD1 or VD2. Replace varicap diodes(s). E) Damaged AM loop antenna. Repair or replace.
Bass control has no effect.	A) Variable resistor BASS defective. Replace.
Treble control has no effect.	A) Variable resistor TREBLE defective.
Auto tune inoperative. (UP/DOWN)	A) Poor contact in Up/Down key. Repair or replace. B) Defective IC301. Replace. C) Defective tuner Circuit components. Replace. D) In case of FM only, improper adjustment of FM front-end. Readjust.
Manual tune inoperative. (UP/DOWN) (AM or FM)	A) Poor contact in Up/Down key. B) Defective IC301. Replace.
Memory setting inoperative.	A) Poor contact in memory keys 1-10. Replace the defective component. B) Defective IC301. Replace the defective component.
FL inoperative.	A) FL defective. Replace. B) Defective IC301. Replace. C) Defective X-TAL 301. Replace.
Noisy volume control.	A) Defective volume. Replace.
Remote Control Unit inoperative.	A) Weak battery. Replace. B) Defective. Replace. C) Defective IC301 (FRONT Board) Replace.

# MECHANICAL PARTS LIST

Ref. No	Description	Part No.	Q'ty	Version	Ref. No	Description	Part No.	Q'ty	Version
	<b>PACKAGE</b>				56	HOLDER PCB	4320044751010	1	
	BOX CARTON	6017040990160	1	D/RDS	57	TERMINAL SPEAKER, 4P	G61204030000B	1	
	BOX CARTON	6017040990190	1	A	58	TERMINAL SPEAKER, 2P	G611040310000	1	
	POLY BAG	6330040092010	1		59	TERMINAL SPEAKER, 8P	G614081036000	1	
	FILM SOFT PE	6320040052010	1		60	BUSHING TERMINAL	2410040270010	14	D/RDS
	CUSHION PLOY	6230042794010	1		61	GROUND TERMINAL	3790000090000	1	
	<b>ACCESSORIES</b>				62	CHASSIS BACK	3207042746010	1	K
	ANTENNA WIRE DIPOLE	E605010010000	1		(62)	CHASSIS BACK	3207042746020	1	A
	ANTENNA LOOP	E601010000000	1		(62)	CHASSIS BACK	3207053166010	1	D
	MATCHING TRANS	L109284007100	1		(62)	CHASSIS BACK	3207042746050	1	RDS
	COMMANDER ASSY	830004025X010	1		63	STOPPER CORD	4380040162010	1	
	BATTERY 1.5V AA (R6M)	G670001R50010	2		64	CORD AC POWER	L061041210010	1	A
	MANUAL INSTRUCTION	5707045950010	1	D/RDS	65	CORD AC POWER	L061040421040	1	D/RDS
	MANUAL INSTRUCTION	5707046390010	1	K	(65)	CORD AC POWER	L061041220010	1	K
	MANUAL INSTRUCTION	5707046390030	1	A	66	COVER TOP	3000045396010	1	A/K
	<b>CABINET &amp; CHASSIS</b>				(66)	COVER TOP	3000045406050	1	D/RDS
1	PANEL FRONT	3067043468050	1	A/K	67	BRACKET PCB	4010056216010	1	
(1)	PANEL FRONT	3067046128010	1	D	68	JACK PHONE (G)	G402040161330	1	
(1)	PANEL FRONT	3067046138010	1	RDS	69	HOLDER FAN	4320044706010	1	
2	KNOB MAIN	5087040768010	1		70	DC-BRUSHLESS FAN	G720040030020	1	
3	KNOB ENCODER	5087040778010	1		71	CLAMPE WIRE	4330040213010	2	
4	KNOB ROTARY(A)	5097050641010	3		72	FELT BUFFER	4050045669010	1	A/K
5	BADGE, Sherwood	5637040591010	1		SW1	SWITCH POWER	G000041610000	1	D/RDS
6	LED GUIDE	4350041551010	1		SW2/SW3	SWITCH PUSH	G000041170000	2	
7	CAP DECORATION	5127040931010	1	A/K	SW4	SWITCH TACT	G180040500010	1	A/K
(7)	CAP DECORATION	5127040931020	1	D/RDS	SW5-SW21	SWITCH TACT	G180040500010	17	
8	WINDOW FL	5077040063010	1	A/K	SW22-SW26	SWITCH TACT	G180040500010	5	RDS
(8)	WINDOW FL	5077040073010	1	D/RDS	SW27	SWITCH TACT	G180040500010	1	A/K
9	BODY FRONT	3417040721010	1	A/K	SW28-SW43	SWITCH TACT	G180040500010	16	
(9)	BODY FRONT	3417040721020	1	D	VR1	VOULME MAIN	C495145300010	1	
(9)	BODY FRONT	3417040731010	1	RDS	VR2	VOULME BLANCE	C450042050000	1	
10	JACK RCA, 3P	G606040300000	1		VR3/VR4	VOULME BASS/TREBLE	C450042060000	2	
11	BRACKET JACK SWITCH	4010043616010	1		VR5	VOULME ENCODER	C450042030010	1	
12	BUTTON PUSH	5090066821010	2			<b>HARDWARE KIT</b>			
13	INDICATOR STANDBY	5160040643010	1		S1/S2	SCREW #2FTC 3×8B	B010530083F10	2	
14	BUTTON STANDBY	5090059231010	1		S3-S55	SCREW #BTT 3×8B	B020030083B10	53	
15	BUTTON POWER	5090059071010	1	A/K	S56-S69	SCREW #B WPTT 3×6Y	B020030061W10	14	
16	BUTTON POWER	509005399101A	1	D/RDS	S70-S79	SCREW #2 BTT 3×8B	B020030083B10	10	
17	HOLDER FL	4320040841010	2		S80-S104	SCREW HEATSINK	1507041146010	25	
18	SHIELD FENCE	3070046576010	1		S105	SCREW GUIDE(A)	1507041456010	1	
19	CHASSIS FRONT	3210041046010	1		S106/S107	SCREW GUIDE(B)	1507041446010	2	
20	COVER BOTTOM	4310041996020	1		S108-S112	SCREW #B BTT 3×8B	B020030083B10	5	
21/22	FOOT AL	4007041021010	2		S113	SCREW GROUND	1507040996010	1	
23/24	FOOT PL	4000040201010	2		S114-S131	SCREW #B BTT 3×8B	B020030083B10	18	
25	FRAME RIGHT	3200047716010	1		S132	SCREW GROUND	1507040996010	1	
26	CUSHION FL B'D	4050042265010	2		S133-S140	SCREW #B BTT 3×8B	B020030083B10	8	
27/28	HEATSINK, REG TR	2120044338010	2		S141-S144	SCREW GROUND	1507040996010	4	
29	HEATSINK, REG TR	2120044358010	1		S145-S148	SCREW WSAM 4×8B	B020940083W10	4	
30-36	HEATSINK, REG TR	2120044338010	7		S149-S154	SCREW BSAM 4×8B	B020940083B10	6	
37	FASTENER	4420040323010	2		S155-S157	SCREW #B BTT 3×8B	B020030083B10	3	
38	SUPPORTER PCB	4420010153010	2			<b>MISCELLANEOUS</b>			
39	HEATSINK POWER	2120044958010	1			POWER TRANS, 230/50	8200281016870	1	D/RDS
40	FRME LEFT	3200047706010	1			POWER TRANS, 120/60	8200281012670	1	A
41	INSULATION COVER	1240043892010	1			POWER TRANS, 220/60	8200281012770	1	K
42	AC OUTLET	G435040070000	1	A		SPONGE RUBBER	4050045095010	1	
43	AC OUTLET	G435040110000	1	D/RDS		CARD CABLE	L301186213590	1	
(43)	AC OUTLET	G435000160010	1	K					
44	JACK MULTI ROOM	G402042070000	1	A					
45	JACK RCA, 3P	G606300395020	1						
46	JACK RCA, 2P	G601200900020	1	A/D/RDS					
(46)	JACK RCA, 3P	G606300390020	1	K					
47	JACK RCA, 3P	G606300390020	1						
48	JACK RCA, 9P	G607901500010	1						
49	JACK RCA, 4P	G602400910010	1						
50	JACK RCA, 6P	G603600920020	1						
51	JACK RCA, 2P	G601200440020	1						
52	JACK RCA, 6P	G603600920040	1						
53	JACK RCA, 6P	G603600920020	1						
54	ANTENNA TERMINAL	G590040470000	1	A/K					
(54)	ANTENNA TERMINAL	G59004046000A	1	D/RDS					
55	JUMPER PLUG	L063040750000	5						

\* Parts with blank version are available in common.

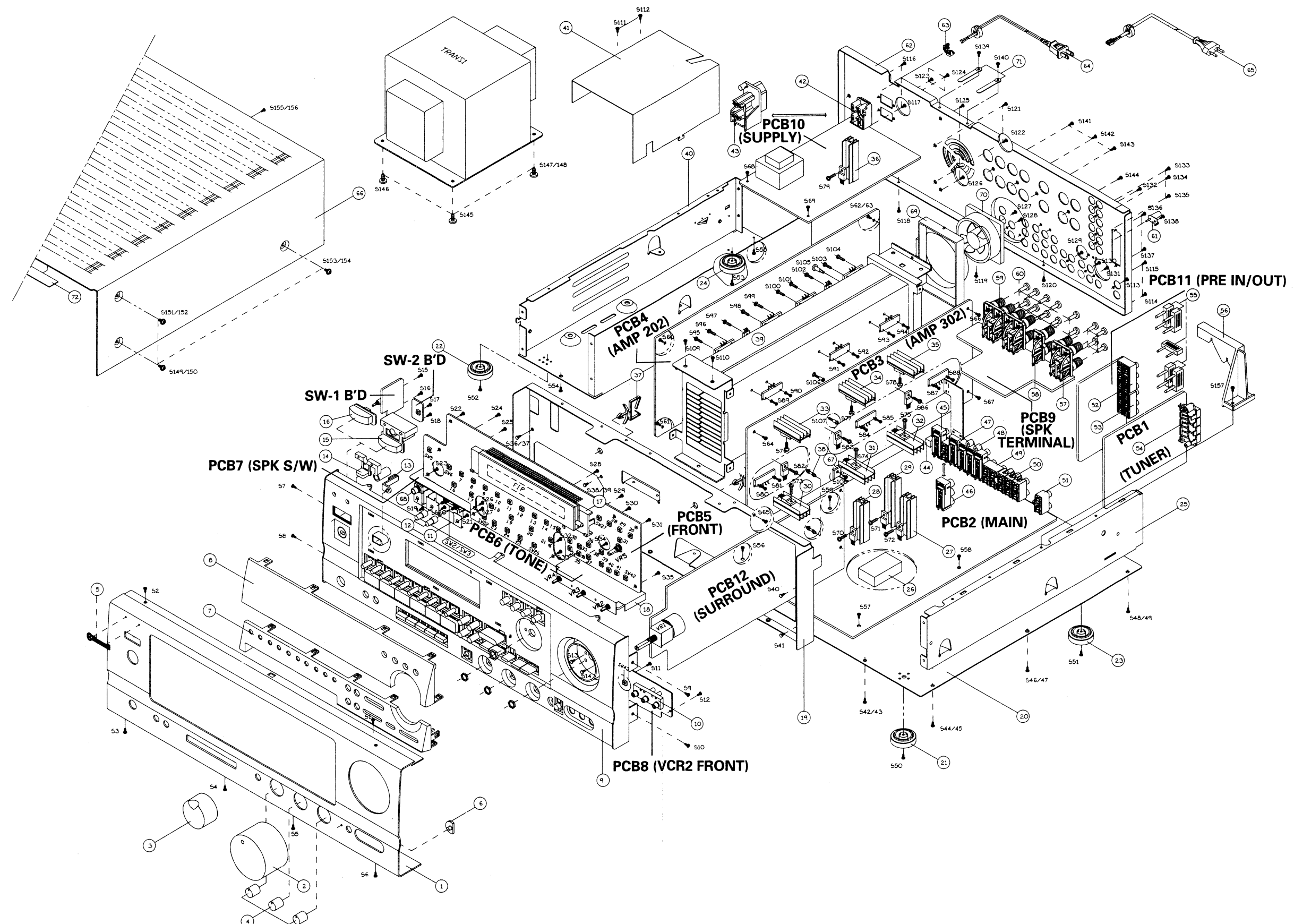
## PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol  $\Delta$  in the parts list are of special significance to safety. When replacing a component identified with  $\Delta$ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.



# EXPLODED VIEW

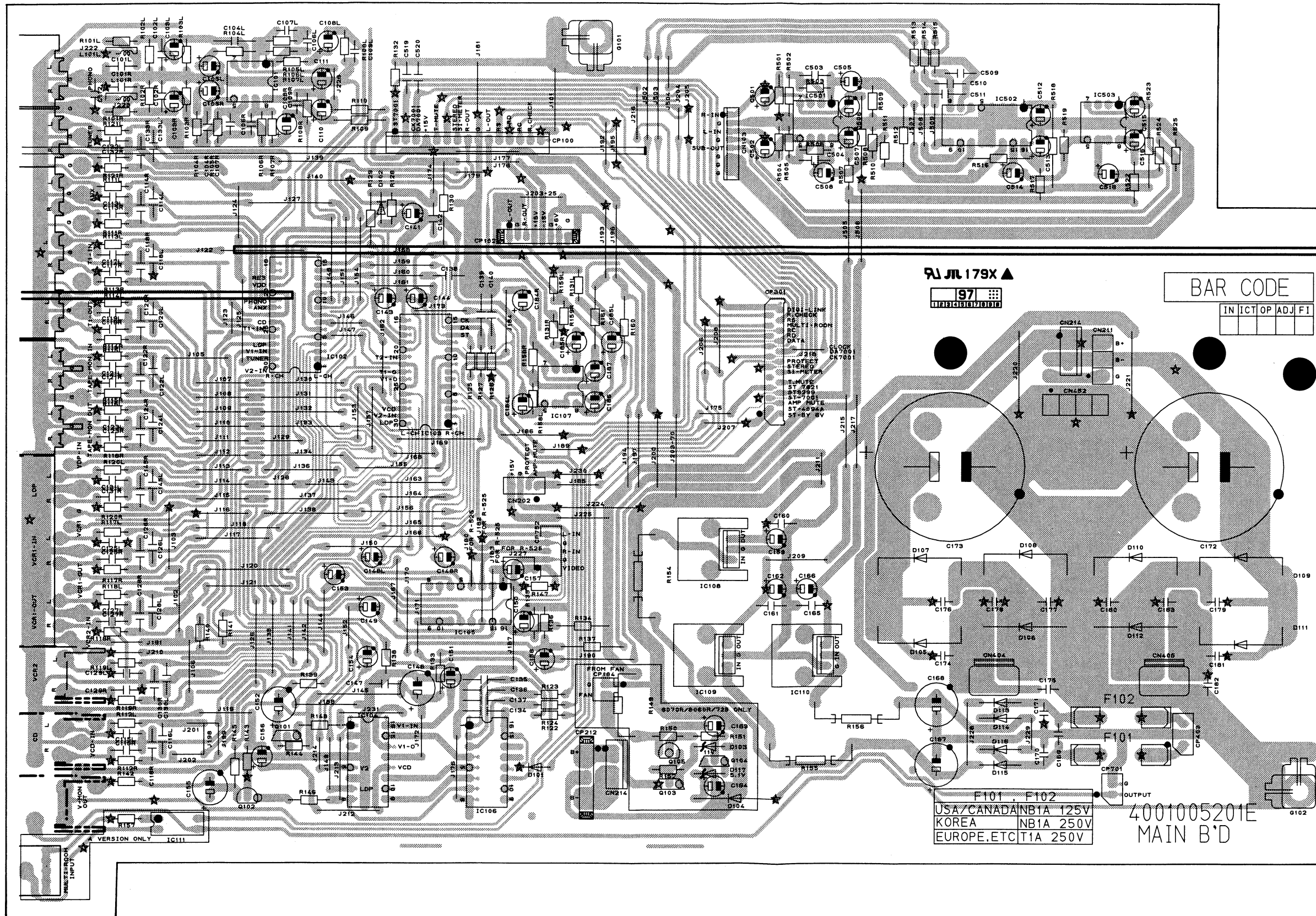
Model No. : R-725/RDS · AV-725



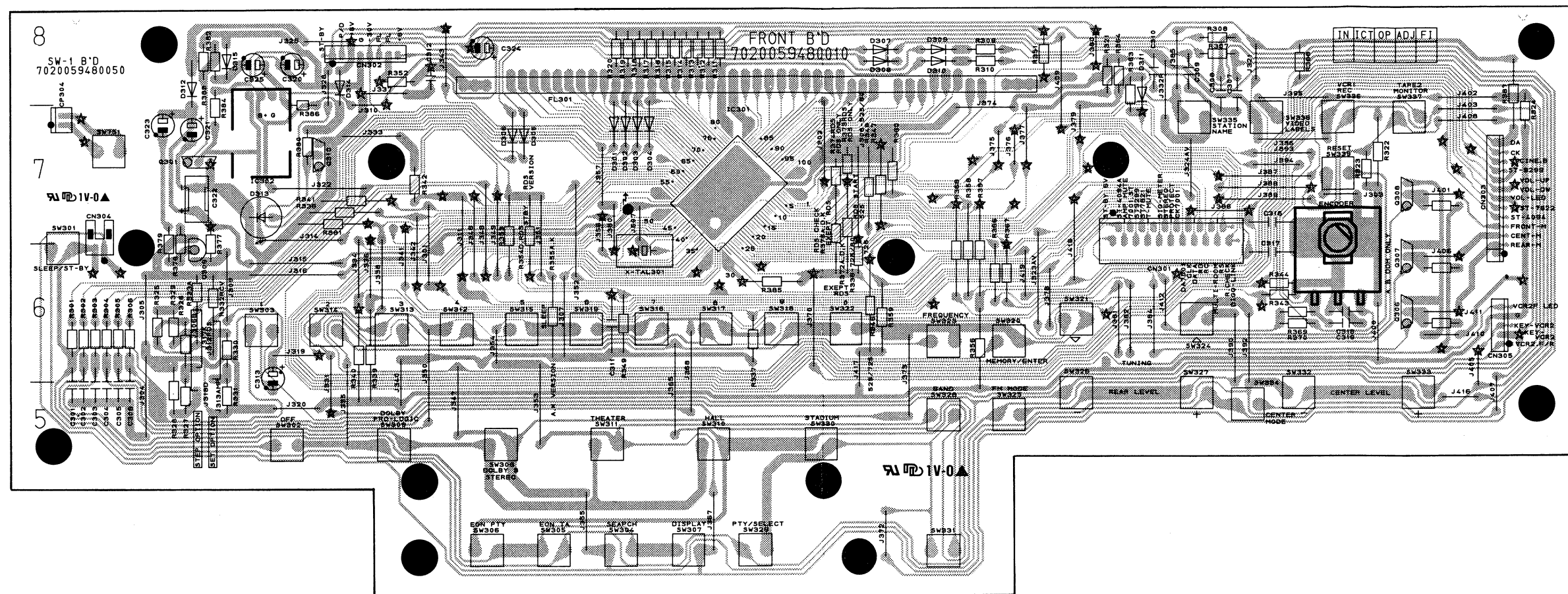
# PRINTED CIRCUIT BOARDS

PCB2 (MAIN)

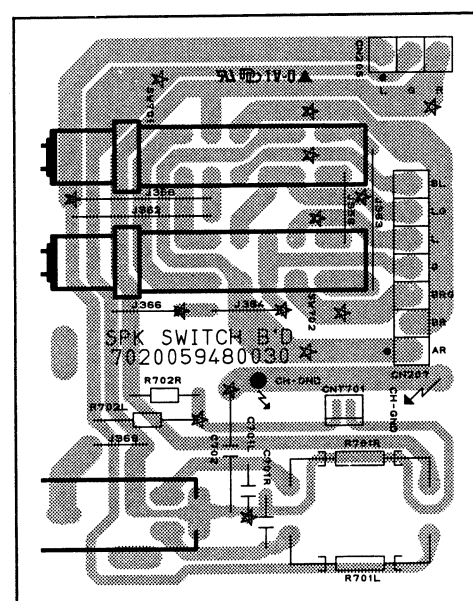
Model No. : R-725/RDS · AV-725



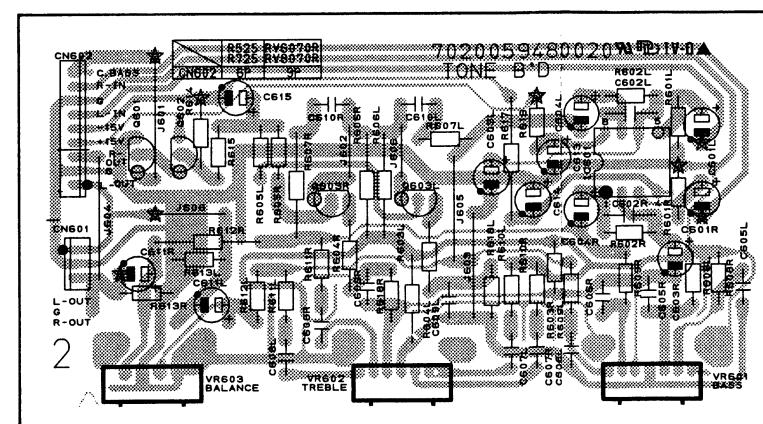
PCB5 (FRONT)



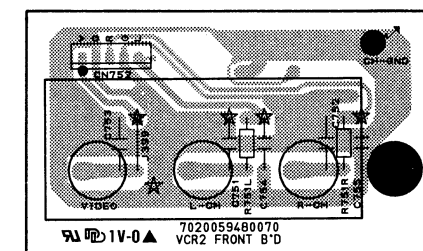
PCB7 (SPK SWITCH)



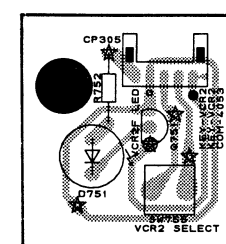
PCB6 (TONE)



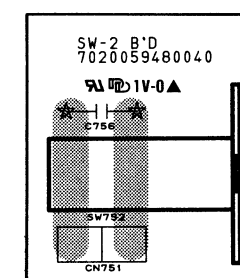
PCB8 (VCR2 FRONT)



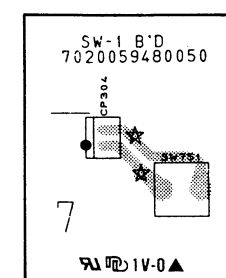
VCR2 SELECT B'D



SW-2 B'D

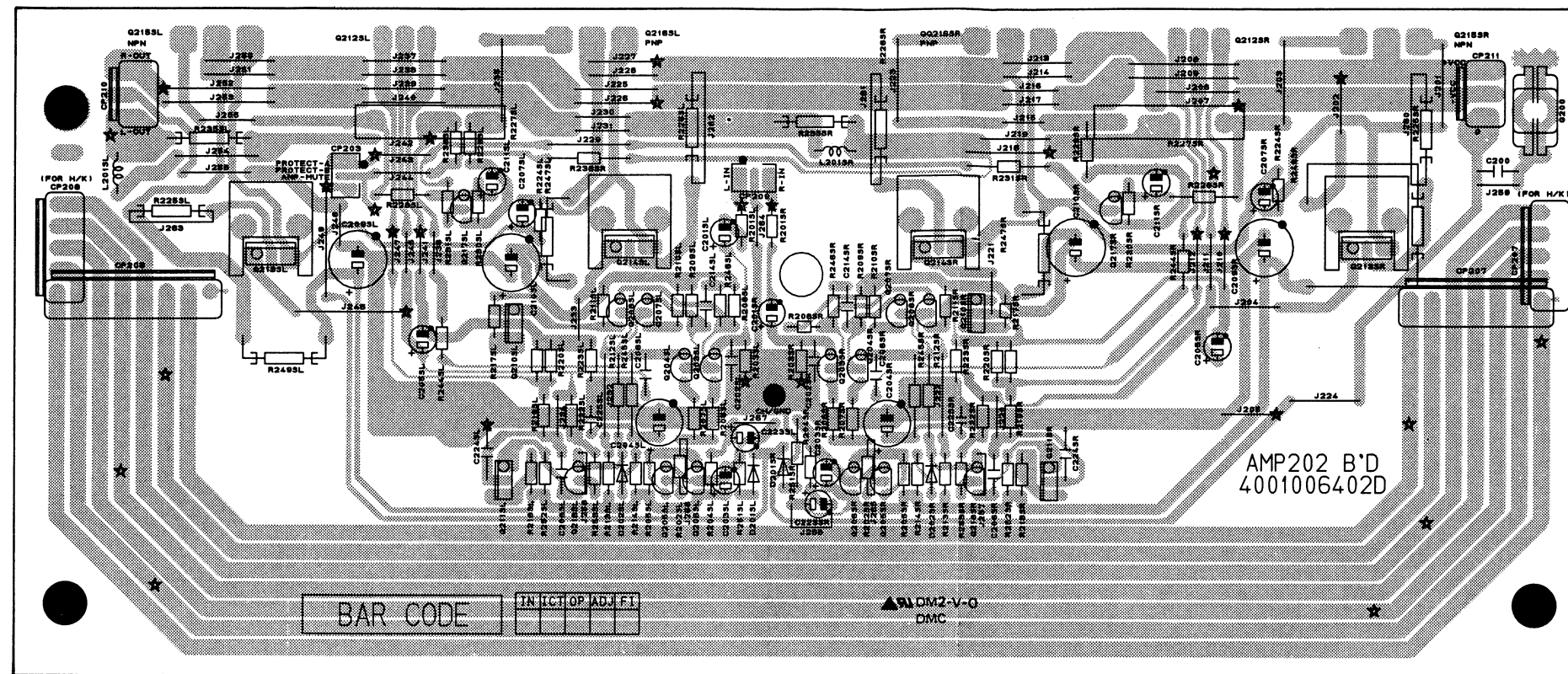


SW-1 B'D

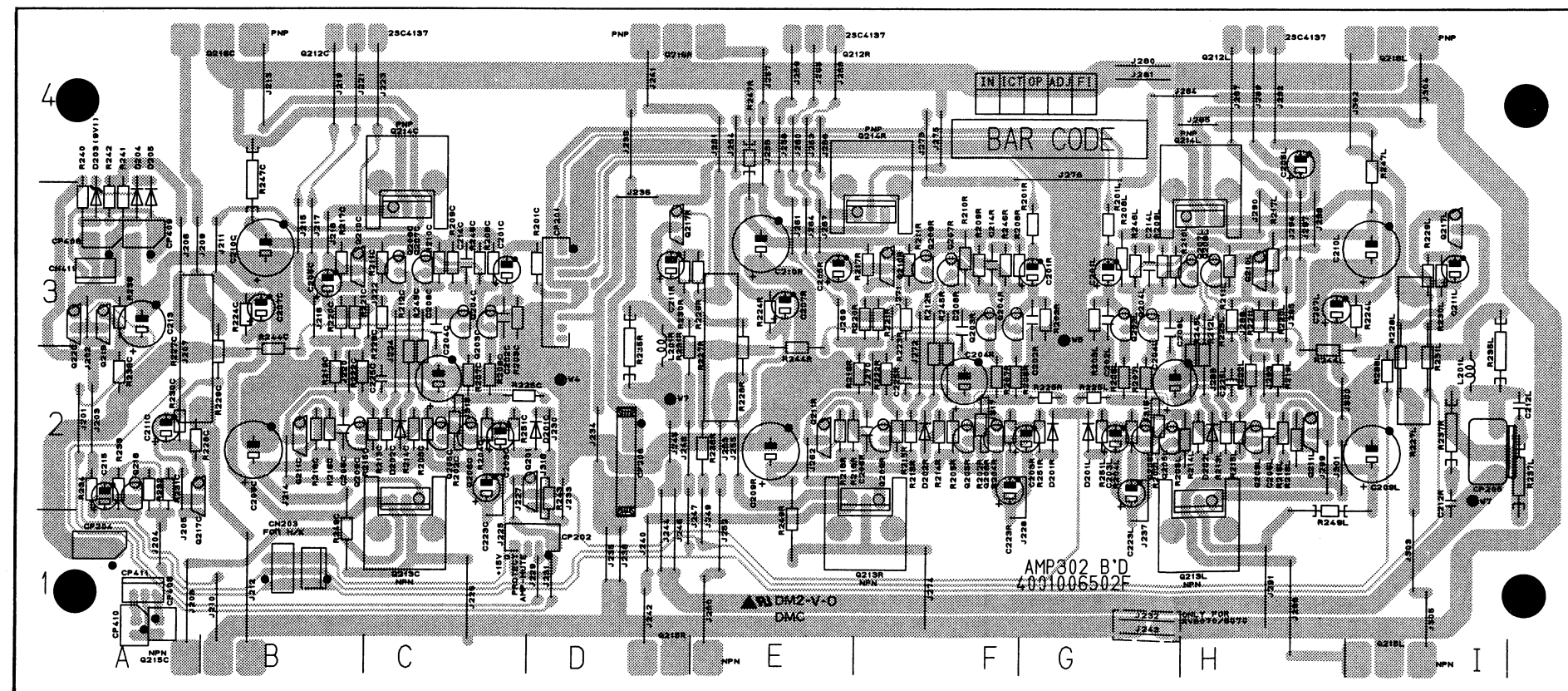
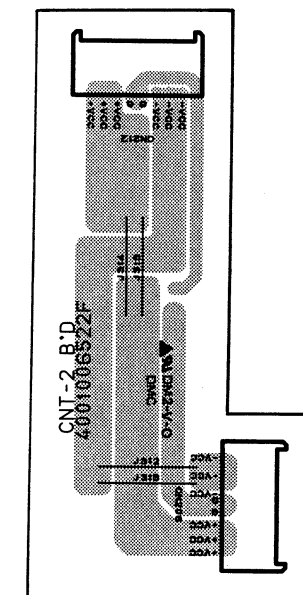




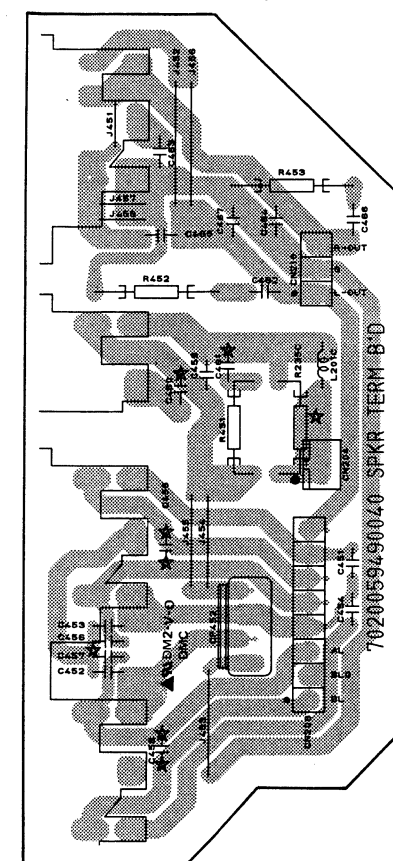
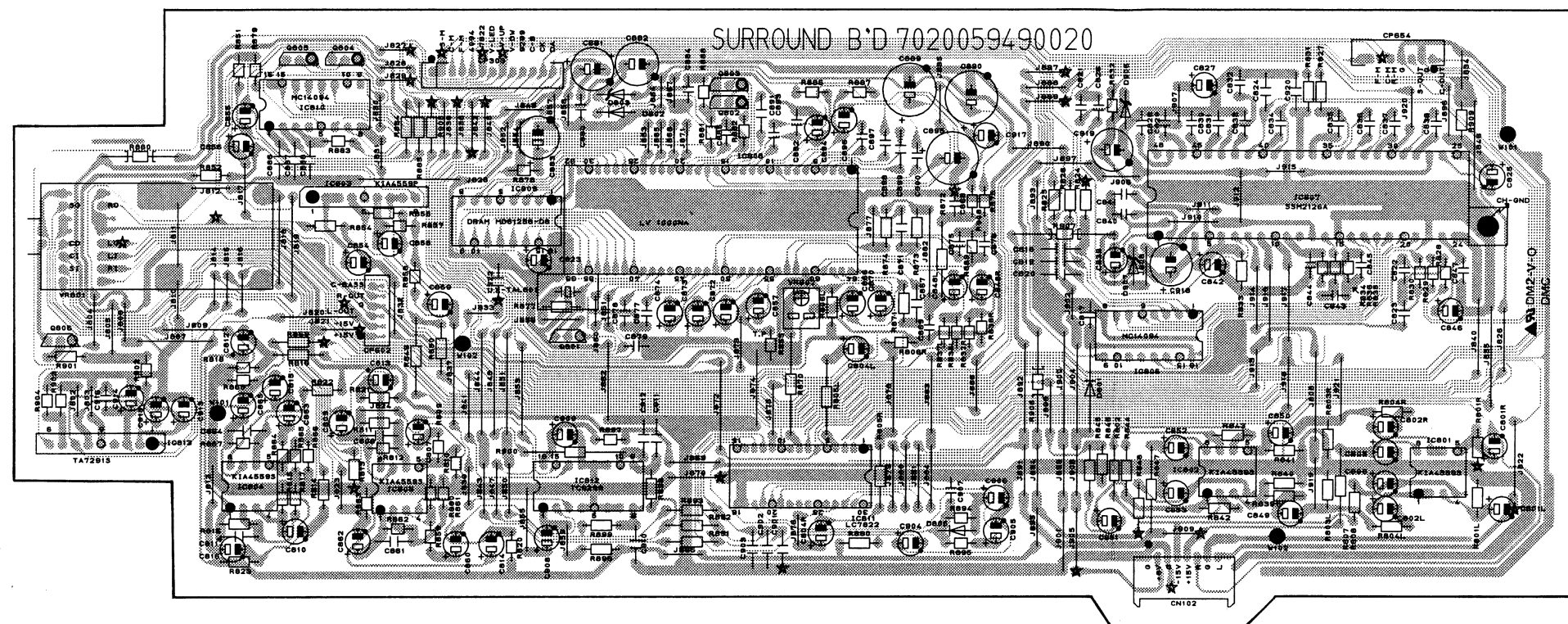
### PCB4 (AMP 202)



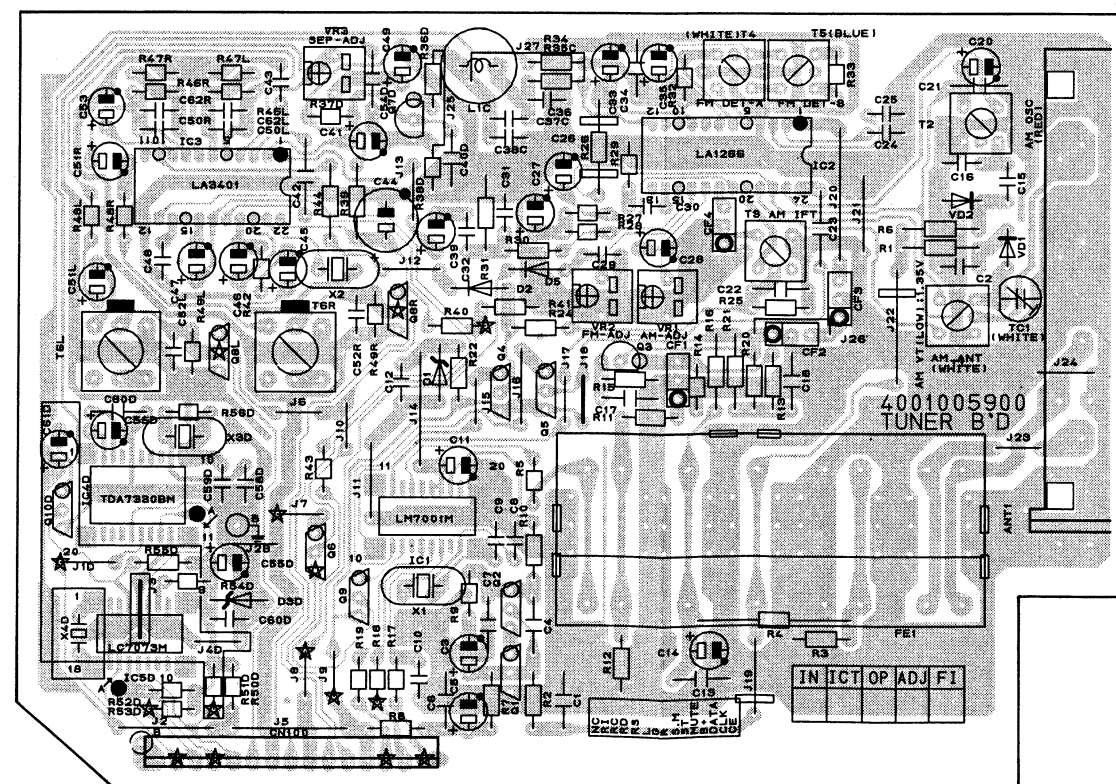
**PCB3 (AMP 302)**

**CNT-2 B'D**

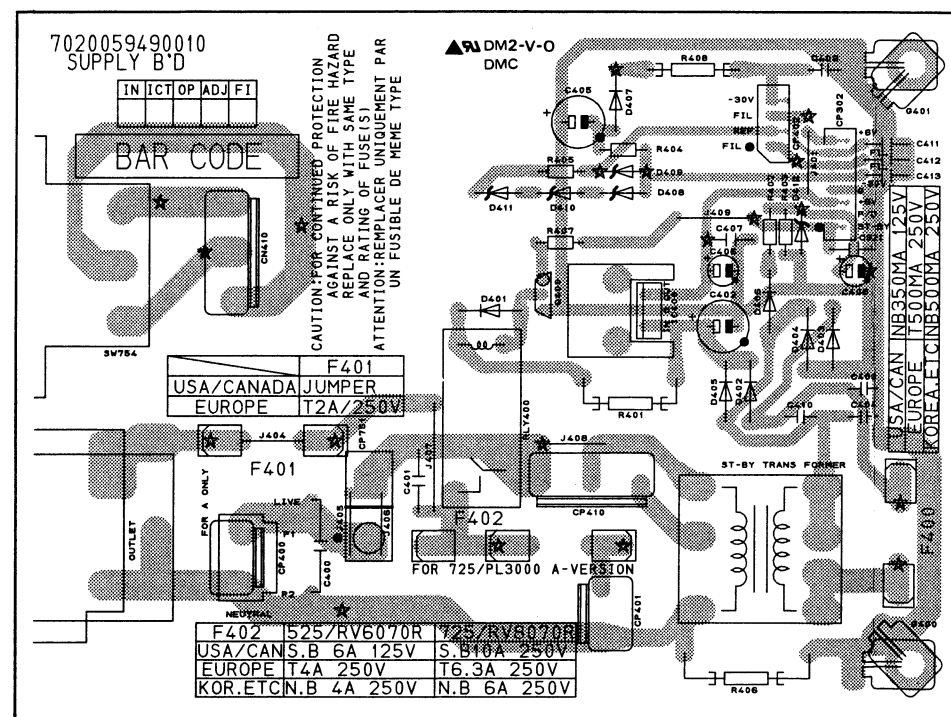
PCB12 (SURROUND)



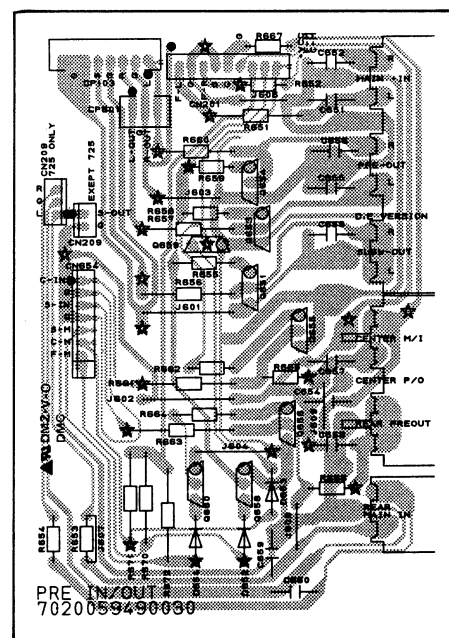
PCB1 (TUNER)



PCB10 (SUPPLY)



PCB11 (PRE IN/OUT)





## ELECTRICAL PARTS LIST

Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
PCB1 ASSEMBLY P.C.BOARD TUNER (NON RDS VERSION)																			
CAPACITORS																			
C1	CERAMIC TUBULAR	0.022 μF	25 V	D005223574530	1	R32	CARBON FILM	5.6 kohm	1/5 W	J C00005626P520	1	IC1	INTEGRATED CIRCUITS	C134	CERAMIC TUBULAR	0.1 μF	50 V	K D005103077530	1
C2	CERAMIC DISC	0.047 μF	50 V	Z D004473097060	1	R33	METAL FILM	3.3 kohm	1/5 W	J C06003326P520	1	IC2	LA1266G	C135-C140	CERAMIC TUBULAR	100 μF	50 V	J D001101077530	6
C3	ELECTROLYTIC SG	3.3 μF	50 V	M D0403R3087100	1	R34	METAL FILM	100 ohm	1/5 W	J C06001016P520	1	IC3	LA3401	C141	ELECTROLYTIC SG	1 μF	50 V	M D040010087050	1
C4	CERAMIC TUBULAR	0.01 μF	16 V	D005103773530	1	R40	CARBON FILM	47 kohm	1/5 W	J C00004736P520	1	IC4	LD3403B0D	C142	CERAMIC TUBULAR	0.01 μF	16 V	D005103773530	1
C5	ELECTROLYTIC SG	47 μF	16 V	M D040470083100	1	R41	CARBON FILM	22 kohm	1/5 W	J C00002236P520	1	IC5	LC7073M	C143/C144	ELECTROLYTIC SG	47 μF	25 V	M D040470084100	2
C6	CERAMIC TUBULAR	0.022 μF	25 V	D005223574530	1	R42	METAL FILM	3.3 kohm	1/5 W	J C06003326P520	1			C145/LR	CERAMIC TUBULAR	100 μF	50 V	J D001101077530	2
C7	CERAMIC TUBULAR	0.01 μF	16 V	D005103773530	1	R44	CARBON FILM	22 kohm	1/5 W	J C00002236P520	1			C146	ELECTROLYTIC SG	470 μF	10 V	M D040471082100	1
C8	CERAMIC DISC CH	18 pF	50 V	J D000180167070	1	R46/LR	CARBON FILM	220 kohm	1/5 W	J C00002246P520	2	Q1/Q2	2SC1740S, NPN	C147	CERAMIC TUBULAR	0.1 μF	50 V	K D005103077530	1
C9	CERAMIC DISC CH	18 pF	50 V	J D000180167070	1	R47/LR	CARBON FILM	270 kohm	1/5 W	J C00002746P520	2	Q4-Q6	KRA107MDTA114YS, PNP	C148/LR	ELECTROLYTIC SG	10 μF	50 V	M D040100087050	2
C10	CERAMIC DISC	100 pF	50 V	J D004101067060	1	R48/LR	METAL FILM	2.7 kohm	1/5 W	J C06002726P520	2	Q7	DTC323TS, NPN	C149	ELECTROLYTIC SG	10 μF	50 V	M D040100087050	1
C11	ELECTROLYTIC SG	47 μF	16 V	M D040470083100	1	R49/LR	METAL FILM	3.3 kohm	1/5 W	J C06003326P520	2	Q8/LR	KRA107MDTA114YS, PNP	C150	ELECTROLYTIC SG	47 μF	25 V	M D040470084100	1
C12	CERAMIC DISC	0.022 μF	50 V	Z D004223097060	1							Q9	C153/C154	C151	ELECTROLYTIC SG	33 μF	25 V	M D040330084100	1
C13	CERAMIC TUBULAR	0.022 μF	25 V	D005223574530	1	T1	COILS					Q8/LR	C152	C152	ELECTROLYTIC SG	470 μF	10 V	M D040471082100	1
C14	ELECTROLYTIC SG	100 μF	16 V	M D040101083100	1	T2	AM-ANT	D304564300000	1			Q9	C155	C155	ELECTROLYTIC SG	33 μF	25 V	M D040330084100	2
C15	POLY	470 pF	50 V	J D022471067050	1	T3	AM-OSC	D940111027000	1			Q10	C156/C157	C156	ELECTROLYTIC SG	470 μF	10 V	M D040471082100	1
C16	CERAMIC DISC CH	15 pF	50 V	J D000150167070	1	T4	AM-IFT	D950010050000	1	R1	RESISTORS		C158	C158	ELECTROLYTIC SG	47 μF	25 V	M D040470084100	2
C17/C18	CERAMIC TUBULAR	0.022 μF	25 V	D005223574530	2	T5	FM-DET-A	D970010040000	1	R2	CARBON FILM	100 kohm	C159	C159	ELECTROLYTIC SG	100 μF	16 V	M D040101083100	1
C20	ELECTROLYTIC SG	10 μF	35 V	M D040100085100	1	T6	FM-DET-B	D970010060000	1	R3	CARBON FILM	5.6 kohm	C160/C161	C160	CERAMIC TUBULAR	0.1 μF	50 V	K D005103077530	2
C21/C22	CERAMIC TUBULAR	0.022 μF	25 V	D005223574530	2	T6/LR	MPX(19/38kHz)	E401500100000	2	R4	CARBON FILM	100 kohm	C162	C162	ELECTROLYTIC SG	1 μF	50 V	M D040010087050	1
C23	CERAMIC TUBULAR	0.01 μF	16 V	D005103773530	1					R5	CARBON FILM	470 ohm	C163/C164	C163	ELECTROLYTIC SG	10 μF	50 V	M D040100087050	2

Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version				
R117/LR	METAL FILM	470 ohm	1/5 W	J	C06004716P520	2	R206C/LR	METAL FILM	390 ohm	1/5 W	J	C06003916P520	3
R118/LR	METAL FILM	470 ohm	1/5 W	J	C06004716P520	2	R207C/LR	METAL FILM	390 ohm	1/5 W	J	C06003916P520	3
R119/LR	METAL FILM	470 ohm	1/5 W	J	C06004716P520	2	R208C/LR	METAL FILM	1.5 kohm	1/5 W	J	C06001526P520	3
R120/LR	METAL FILM	470 ohm	1/5 W	J	C06004716P520	2	R209C/LR	METAL FILM	1.5 kohm	1/5 W	J	C06001526P520	3
R122-R127	METAL FILM	1 kohm	1/5 W	J	C06001026P520	6	R210C/LR	METAL FILM	560 ohm	1/5 W	J	C06005616P520	3
R128	CARBON FILM	100 kohm	1/5 W	J	C00001046P520	1	R211C/LR	METAL FILM	560 ohm	1/5 W	J	C06005616P520	3
R129/R130	METAL FILM	220 ohm	1/5 W	J	C06002216P520	2	R212C/LR	METAL FILM	560 ohm	1/5 W	J	C06005616P520	3
R131	METAL FILM	470 ohm	1/5 W	J	C06004716P520	2	R213C/LR	METAL FILM	560 ohm	1/5 W	J	C06005616P520	3
R133	METAL FILM	3.3 ohm	1/5 W	J	C0603R306P520	1	R214C/LR	METAL FILM	560 ohm	1/5 W	J	C06005616P520	3
R134~R137	METAL FILM	3.3 kohm	1/5 W	J	C06003326P520	4	R215C/LR	METAL FILM	4.7 kohm	1/5 W	J	C06004726P520	3
R138~R140	METAL FILM	75 ohm	1/5 W	J	C06007506P520	3	R216C/LR	METAL FILM	560 ohm	1/5 W	J	C06005616P520	3
R141-R143	METAL FILM	75 ohm	1/5 W	J	C06007506P520	3	R217C/LR	METAL FILM	82 ohm	1/5 W	J	C06008206P520	3
R144-R146	METAL FILM	100 ohm	1/5 W	J	C06001016P520	3	R218C/LR	METAL FILM	82 ohm	1/5 W	J	C06008206P520	3
R147	METAL FILM	75 ohm	1/5 W	J	C06007506P520	1	R219C/LR	METAL FILM	1.2 kohm	1/5 W	J	C06001226P520	3
R148	METAL FILM	100 ohm	1/5 W	J	C06001016P520	1	R220C/LR	METAL FILM	910 ohm	1/5 W	J	C06009116P520	3
R154	METAL FILM	10 ohm	2 W	J	C060010066520	1	R221C/LR	METAL FILM	1 kohm	1/5 W	J	C06001026P520	3
R155	METAL FILM	4.7 ohm	2 W	J	C0604R7066520	1	R222C/LR	CARBON FILM	22 kohm	1/5 W	J	C00002236P520	3
R156	METAL FILM	10 ohm	2 W	J	C060010066520	1	R223C/LR	CARBON FILM	22 kohm	1/5 W	J	C00002236P520	3
R157	METAL FILM	470 ohm	1/5 W	J	C06004716P520	1	R224C/LR	METAL FILM	82 ohm	1/5 W	J	C06008206P520	3
R158/LR	CARBON FILM	100 kohm	1/5 W	J	C00001046P520	2	R227C/LR	CEMENT (Dual)	0.27 ohm	5 W	J	C141R27079300	3
R159/LR	CARBON FILM	100 kohm	1/5 W	J	C00001046P520	2	R228C/LR	METAL FILM	2.2 kohm	1/5 W	J	C06002226P520	3
R160/R161	METAL FILM	220 ohm	1/5 W	J	C06002216P520	2	R229C/LR	METAL FILM	2.2 kohm	1/5 W	J	C06002226P520	3
R168	METAL FILM	4.7 kohm	1/5 W	J	C06004726P520	1	R230C/LR	METAL FILM	1 kohm	1/5 W	J	C06001026P520	3
R501	CARBON FILM	100 kohm	1/5 W	J	C00001046P520	1	R231C/LR	CARBON FILM	6.8 kohm	1/5 W	J	C00006826P520	3
R502	METAL FILM	1 kohm	1/5 W	J	C06001026P520	1	R232	CARBON FILM	6.8 kohm	1/5 W	J	C00006836P520	1
R503	METAL FILM	1.2 kohm	1/5 W	J	C06001226P520	1	R233	CARBON FILM	100 kohm	1/5 W	J	C00001046P520	1
R504	CARBON FILM	100 kohm	1/5 W	J	C00001046P520	1	R234	METAL FILM	3.3 kohm	1/5 W	J	C06003326P520	1
R505	METAL FILM	1 kohm	1/5 W	J	C06001026P520	1	R235/LR	METAL FILM	10 ohm	1 W	J	C060010065520	2
R506	METAL FILM	1.2 kohm	1/5 W	J	C06001226P520	1	R237/LR	METAL FILM	10 ohm	1 W	J	C060010065520	2
R507/R508	METAL FILM	220 ohm	1/5 W	J	C06002216P520	2	R238C/LR	CARBON FILM	22 kohm	1/5 W	J	C00002236P520	3
R509/R510	CARBON FILM	100 kohm	1/5 W	J	C00001046P520	2	R239	METAL FILM	1.5 kohm	1/5 W	J	C06001526P520	1
R511-R515	METAL FILM	1 kohm	1/5 W	J	C06001026P520	5	R240	METAL FILM	470 ohm	1/5 W	J	C06004716P520	1
R516	CARBON FILM	4.7 kohm	1/5 W	J	C06004726P520	1	R241	CARBON FILM	70 kohm	1/5 W	J	C00001036P520	1
R517/R518	METAL FILM	220 ohm	1/5 W	J	C06002216P520	2	R242	CARBON FILM	7.5 kohm	1/5 W	J	C00007526P520	1
R519	CARBON FILM	100 kohm	1/5 W	J	C00001046P520	1	R243	CARBON FILM	150 kohm	1/5 W	J	C00001546P520	1
R522/R523	METAL FILM	220 ohm	1/5 W	J	C06002216P520	2	R244C/LR	CARBON FILM	33 kohm	1/5 W	J	C0000336P520	3
R524	METAL FILM	1 kohm	1/5 W	J	C06001026P520	1	R245C	METAL FILM	1.8 kohm	1/5 W	J	C06001826P520	1
R525	CARBON FILM	100 kohm	1/5 W	J	C00001046P520	1	R245/LR	METAL FILM	1.2 kohm	1/5 W	J	C06001226P520	2
						R246C	METAL FILM	1 kohm	1/5 W	J	C06001026P520	3	
PCB3	ASSEMBLY P.C.BOARD AMP302					R247C/LR	METAL FILM	47 ohm	1 W	J	C060047065520	3	
	CAPACITORS					R249C/LR	METAL FILM	47 ohm	1 W	J	C060047065520	3	
C201C/LR	ELECTROLYTIC SG	47 μF	16 V	M	D040470083100	3	R251C/LR	CARBON FILM	33 kohm	1/5 W	J	C0000336P520	3
C202C/LR	CERAMIC TUBULAR	68 pF	50 V	J	D001680067530	3							
C203C/LR	ELECTROLYTIC SG	100 μF	10 V	M	D040101082080	3		ASSEMBLY P.C.BOARD CNT-2					
C204C/LR	ELECTROLYTIC SA	470 μF	6.3 V	M	D040471081100	3	CN206	PLUG, 8P			L111507600810	1	
C205C/LR	ELECTROLYTIC SG	10 μF	50 V	M	D040100087050	3	CN212	PLUG, 8P			L111507600810	1	
C206C/LR	CERAMIC TUBULAR	47 pF	50 V	J	D001470067530	3							
C207C/LR	ELECTROLYTIC SG	4.7 μF	50 V	M	D0404R7087100	3							
C208C/LR	CERAMIC TUBULAR	15 pF	50 V	J	D001150067530	3							
C209C/LR	ELECTROLYTIC SM	47 μF	100 V	M	D04047008C130	3							
C210C/LR	ELECTROLYTIC SM	47 μF	100 V	M	D04047008C130	3							
C211C/LR	ELECTROLYTIC SG	22 μF	35 V	M	D040220085100	3							
C212/LR	MYLAR	0.047 μF	100 V	J	D02047306C060	2							
C213	ELECTROLYTIC SA	470 μF	6.3 V	M	D040471081100	3							
C214C/LR	CERAMIC TUBULAR	470 pF	50 V	D	D005471077530	3							
C215	ELECTROLYTIC SG	1 μF	50 V	M	D040010087050	1							
	CONNECTORS												
CP201	PLUG, 8P				L101220090000	1							
CP202	PLUG, 4P				L101220040000	1							
CP204	PLUG, 3P				L102526703010	1							
CP205	PLUG, 3P				L104202000300	1							
CP408	PULG, 2P				L101220020000	2							
CP206	PULG, 8P				L101507600800	1							
CP410	PULG, 2P				L102526720010	1							
CN203	LEAD ASSY, 3P, 260mm				L022032634320	2							
CN411	LEAD ASSY, 3P, 120mm				L022031236320	1							
	DIODES												
D201C/LR	SWITCHING, 1N4148				K000414801520	3							
D202C/LR	SWITCHING, 1N4148				K000414801520	3							
D203	ZENER, UZ 9.1V BSC				K06009R124520	1							
D204	SWITCHING, 1N4148				K000414801520	1							
D205	SWITCHING, 1N4148				K000414801520	1							
	COILS												
L201/LR	INDUCTOR, 0.5 uH				D330900001320	2							
	TRANSISTORS												
Q203C/LR	KTA1268/KTA970, PNP				J5001268B0050	3							
Q204C/LR	KTG1268/KTA970, PNP				J5001268B0050	3							
Q205C/LR	KTG1268/KTA970, PNP				J5001268B0050	3							
Q206C/LR	BKTA1267Y, PNP				J5001267Y0050	3							
Q207C/LR	KTC3200/KTC2240BL, NPN				J5023200B0050	3							
Q208C/LR	KTC3200/KTC2240BL, NPN				J5023200B0050	3							
Q209C/LR	KTG1268/KTA970, PNP				J5001268B0050	3							
Q210C/LR	2SC3423				J5023423C0000	3							
Q211C/LR	2SA1360				J5001360C0000	3							
Q212C/LR	2SC4137, NPN				J5024137V0130	3							
Q213C/LR	KTC2238Y				J5022238Y0000	3							
Q214C/LR	KTG968Y				J5009680Y0000	3							
Q215C/LR	2SC2921				J5022921Y0000	3							
Q216C/LR	2SA1215				J5001215Y0000	3							
Q217C/LR	2SC1740S, NPN				J5021740S0010	3							
Q218	BKTA1267Y, PNP				J5001267Y0050	1							
Q219/Q220	2SC1740S, NPN				J5021740S0010	2							
	RESISTORS												
R201C/LR	METAL FILM	1 kohm	1/5 W	J	C06001026P520	3							
R203C/LR	CARBON FILM	33 kohm	1/5 W	J	C0000336P520	3							
R204C/LR	CARBON FILM	10 kohm	1/5 W	J	C00001036P520	3							
R205C/LR	METAL FILM	270 ohm	1/5 W	J	C06002716P520	3							

Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
R210SL/SR	METAL FILM	560 ohm 1/5 W J C06005616P520	2		R385	CARBON FILM	180 kohm 1/5 W J C00001846P520	1	
R211SL/SR	METAL FILM	560 ohm 1/5 W J C06005616P520	2		R386	METAL FILM	3.9 kohm 1/5 W J C06003926P520	1	A(Only)
R212SL/SR	METAL FILM	560 ohm 1/5 W J C06005616P520	2		R387/R388	METAL FILM	470 ohm 1/5 W J C06004716P520	2	
R213SL/SR	METAL FILM	560 ohm 1/5 W J C06005616P520	2			MISCELLANEOUS			
R214SL/SR	METAL FILM	560 ohm 1/5 W J C06005616P520	2		SW301-SW303	TECT SWITCH	G180040500010	3	
R217SL/SR	METAL FILM	82 ohm 1/5 W J C06008206P520	2		SW304-SW307	TECT SWITCH	G180040500010	4	RDS(Only)
R218SL/SR	METAL FILM	82 ohm 1/5 W J C06008206P520	2		SW308-SW328	TECT SWITCH	G180040500010	20	
R219SL/SR	METAL FILM	1 kohm 1/5 W J C06001226P520	2		SW329	TECT SWITCH	G180040500010	1	RDS(Only)
R220SL/SR	METAL FILM	470 ohm 1/5 W J C06004716P520	2		SW330-SW334	TECT SWITCH	G180040500010	5	
R222SL/SR	CARBON FILM	22 kohm 1/5 W J C00002236P520	2		SW335	TECT SWITCH	G180040500010	1	A/K(Only)
R223SL/SR	CARBON FILM	22 kohm 1/5 W J C00002236P520	2		SW336-SW339	TECT SWITCH	G180040500010	4	
R224SL/SR	METAL FILM	82 ohm 1/5 W J C06008206P520	2		X-TAL301	CST10M	E83010000050	1	
R225SL/SR	METAL FILM	1 kohm 1 W J C060010265520	2						
R226SL/SR	METAL FILM	1 kohm 1 W J C060010265520	2						
R227SL/SR	CEMENT (Dual)	0.27 ohm 5 W J C141R27079300	2						
R228SL/SR	METAL FILM	1 kohm 1/5 W J C06001026P520	2						
R229SL/SR	METAL FILM	1 kohm 1/5 W J C06001026P520	2						
R230SL/SR	METAL FILM	910 ohm 1/5 W J C06009116P520	2						
R231SL/SR	CARBON FILM	6.8 kohm 1/5 W J C00006826P520	2						
R235SL/SR	METAL FILM	10 ohm 1 W J C060010065520	2						
R238SL/SR	CARBON FILM	22 kohm 1/5 W J C00002236P520	2						
R244SL/SR	CARBON FILM	33 kohm 1/5 W J C00003336P520	2						
R245SL/SR	METAL FILM	2.2 kohm 1/5 W J C06002226P520	2						
R246SL/SR	METAL FILM	1 kohm 1/5 W J C06001026P520	2						
R247SL/SR	METAL FILM	47 ohm 1 W J C060047065520	2						
R249SL/SR	METAL FILM	47 ohm 1 W J C060047065520	2						
R251SL/SR	CARBON FILM	33 kohm 1/5 W J C00003336P520	2						
* ASSEMBLY P.C.BOARD FRONT ( PCB 5, 6, 7, 8 )									
PCB5	ASSEMBLY P.C.BOARD FRONT								
	CAPACITORS								
C301-C310	CERAMIC TUBULAR	100 pF 50 V J D001101077530	10		CB601/L	ELECTROLYTIC SG	4.7 $\mu$ F 50 V M D0404R7087100	2	
C312	MYLAR	0.047 $\mu$ F 100 V J D02047306C060	2		C602/L	CERAMIC TUBULAR	100 pF 50 V J D001101077530	2	
C313	ELECTROLYTIC SG	0.1 $\mu$ F 50 V M D040R10087050	1		C603/L	ELECTROLYTIC SG	10 $\mu$ F 50 V M D040100087050	2	
C316/C317	CERAMIC TUBULAR	100 pF 50 V J D001101077530	2		C604/L	ELECTROLYTIC SG	4.7 $\mu$ F 50 V M D0404R7087100	2	
C318/C319	CERAMIC TUBULAR	820 pF 50 V D005821077530	2		C605/L	MYLAR	0.082 $\mu$ F 63 V K D020823078060	2	
C320	ELECTROLYTIC SG	47 $\mu$ F 16 V M D040470083100	1		C606/L	MYLAR	0.015 $\mu$ F 100 V J D02015306C060	2	
C321	ELECTROLYTIC SG	47 $\mu$ F 25 V M D040470084100	1		C607/L	MYLAR	0.022 $\mu$ F 100 V J D02022306C060	2	
C322	ELECTROLYTIC SG	0.047 $\mu$ F 5.5 V M D090473704010	1		C608/L	MYLAR	0.0033 $\mu$ F 100 V J D02033206C060	2	
C323	ELECTROLYTIC SG	10 $\mu$ F 50 V M D040100087050	1		C609/L	MYLAR	0.33 $\mu$ F 25 V K D020334078060	2	
C324	ELECTROLYTIC SG	47 $\mu$ F 50 V M D040470087100	1		C610/L	MYLAR	0.0082 $\mu$ F 100 V J D02082206C060	2	
C325	ELECTROLYTIC SG	10 $\mu$ F 35 V M D040100085100	1	A(Only)	C611/L	ELECTROLYTIC SG	1 $\mu$ F 50 V M D040109087050	2	
	CONNECTORS				C614	ELECTROLYTIC SG	47 $\mu$ F 25 V M D040470084100	1	
CN300	LEAD ASSY, 5P, 80mm	L022050834320	1		C615	ELECTROLYTIC SG	3.3 $\mu$ F 50 V M D040339087050	1	
CN301	PLUG, 52575-2130	L131525752100	1			CONNECTORS			
CN302	LEAD ASSY, 8P, 350mm	L022083534320	1		CN601	LEAD ASSY, 3P, 400mm	L022034071320	1	
CN303	LEAD ASSY, 12P, 200mm	L022122034320	1		CN602	LEAD ASSY, 6P, 200mm	L032062077320	1	
CP304	PLUG ANGLE, 2P,	L101220020010	1			INTEGRATED CIRCUIT			
CNT301	CABLE FPC, 2P, 350mm	L301186213590	1		IC601	NJM2068DD	J121455900000	1	
	DIODES					TRANSISTORS			
D301-D312	1N4148, SWITCHING	K000414801520	12		Q601	BKTC3199/2SC3199Y, NPN	J5023199Y0050	1	
D313	LED, SLR-34URCF25	K500032101120	1		Q602	DTA114YS, PNP	J6000114Y0010	1	
D314/D315	1N4148, SWITCHING	K000414801520	2		Q603/L	2SK117Y, FET	J5441170Y0050	2	
	INTEGRATED CIRCUITS					RESISTORS			
IC301	CXP82840-119Q	J089393227330	1		R601/L	CARBON FILM	100 kohm 1/5 W J C00001046P520	2	
IC302	CRV1G342-185BD, REMOTE MODULE	E940342210000	1		R602/L	CARBON FILM	1 Mohm 1/5 W J C00001056P520	2	
	TRANSISTORS				R603/L	CARBON FILM	47 kohm 1/5 W J C00004736P520	2	
Q301	BKTC3199/2SC3199Y, NPN	J5023199Y0050	1	A(Only)	R604/L	METAL FILM	2.7 kohm 1/5 W J C060004726P520	2	
Q306-Q308	BKTC3199/2SC3199Y, NPN	J5023199Y0050	3		R605/L	CARBON FILM	10 Mohm 1/5 W J C00001066P520	2	
Q309	MPSA06, NPN	J5020600Y0050	1		R606/L	METAL FILM	4.7 kohm 1/5 W J C06004726P520	2	
Q310	DTC114YS, NPN	J6020114Y0050	1		R607/L	CARBON FILM	27 kohm 1/5 W J C00002736P520	2	
	RESISTORS				R608/L	METAL FILM	3.3 kohm 1/5 W J C06003326P520	2	
R301-R310	METAL FILM	1 kohm 1/5 W J C06001026P520	10		R609/L	CARBON FILM	22 kohm 1/5 W J C00002236P520	2	
R312-R320	CARBON FILM	100 kohm 1/5 W J C00001046P520	9		R610/L	METAL FILM	560 ohm 1/5 W J C06005616P520	2	
R321-R324	CARBON FILM	47 kohm 1/5 W J C00004736P520	4		R611/L	METAL FILM	2.2 kohm 1/5 W J C06002226P520	2	
R325	CARBON FILM	22 kohm 1/5 W J C00002236P520	1		R612/L	METAL FILM	1 kohm 1/5 W J C06001026P520	2	
R326-R328	CARBON FILM	10 kohm 1/5 W J C00001036P520	3		R613/L	CARBON FILM	100 kohm 1/5 W J C00001046P520	2	
R329	METAL FILM	4.7 kohm 1/5 W J C06004726P520	1		R614	CARBON FILM	100 kohm 1/5 W J C00001046P520	2	
R330/R331	CARBON FILM	22 kohm 1/5 W J C00002236P520	2		R615	CARBON FILM	1 Mohm 1/5 W J C00001056P520	1	
R332/R333	CARBON FILM	10 kohm 1/5 W J C00001036P520	2		R616/R617	METAL FILM	220 ohm 1/5 W J C06002216P520	2	
R336/R337	CARBON FILM	10 kohm 1/5 W J C00001036P520	2		R618/L	CARBON FILM	1 Mohm 1/5 W J C00001056P520	2	
R338	CARBON FILM	10 kohm 1/5 W J C00001036P520	1			SEMI FIXED VARIABLE RESISTORS			
R339-R341	CARBON FILM	10 kohm 1/5 W J C00001036P520	3		VR601/VR602	RK14K1260A07, 100K(C)	C450042060000	2	
R342	CARBON FILM	100 kohm 1/5 W J C00001046P520	1		VR603	RK11K1160A07, 100KW	C450042050000	1	
R343/R344	CARBON FILM	10 kohm 1/5 W J C00001036P520	2			PCB7	ASSEMBLY P.C.BOARD SPKR SWITCH		
R346-R349	CARBON FILM	100 kohm 1/5 W J C00001046P520	4		C701/L	CERAMIC TUBULAR	560 pF 50 V D005561077530	2	
R351/R352	METAL FILM	3.3 ohm 1/5 W J C0603R306P520	2		R701/L	METAL FILM	470 ohm 2 W J C060047166520	2	
R353-R355	CARBON FILM	10 kohm 1/5 W J C00001036P520	3		SW701/SW702	SWITCH PUSH	G000041170000	2	
R356	CARBON FILM	100 kohm 1/5 W J C00001046P520	1			PCB8	ASSEMBLY P.C.BOARD VCR2 FRONT		
R357/R358	METAL FILM	100 ohm 1/5 W J C06001016P520	2		C751-C755	CERAMIC TUBULAR	100 pF 50 V J D001101077530	5	
R359/R360	CARBON FILM	100 kohm 1/5 W J C00001046P520	2		C757/C758	CERAMIC TUBULAR	0.1 $\mu$ F 50 V J D005104097530	2	
R363	CARBON FILM	22 kohm 1/5 W J C00002236P520	1		CP300	PLUG ANGLE, 5P	L010122005001	1	
R364	CARBON FILM	220 kohm 1/5 W J C00002246P520	1		CN752	LEAD ASSY, 5P, 350mm	L022053534320	1	
R366-R368	METAL FILM	2.2 kohm 1/5 W J C06002226P520	3		D751	SLR-56-URCF14	K500052101160	1	
R369/R370	CARBON FILM	68 kohm 1/5 W J C00006836P520	2		D752-D755	1N4148, SWITCHING	K000414801520	4	
R372	CARBON FILM	10 kohm 1/5 W J C00001036P520	1	A/K(Only)	Q751	BKTC3199/2SC3199Y, NPN	J5023199Y0050	1	
R373/R374	CARBON FILM	100 kohm 1/5 W J C00001046P520	2	RDS(Only)	R751/L	METAL FILM	470 ohm 1/5 W J C06004716P520	2	
R375	CARBON FILM	10 kohm 1/5 W J C00001036P520	1	A/K(Only)	R752	METAL FILM	470 ohm 1/5 W J C06004716P520	1	
R376	METAL FILM	100 ohm 1/5 W J C06001016P520	1			ASSEMBLY P.C.BOARD SWITCH1			
R377	CARBON FILM	100 kohm 1/5 W J C00001046P520	1		SW751	TACT SWITCH	G180040500010	1	A/K(Only)
R378	CARBON FILM	10 kohm 1/5 W J C00001036P520	1			ASSEMBLY P.C.BOARD SWITCH2			
R379	METAL FILM	330 ohm 1/5 W J C06003316P520	1		C756	CAPACITORS, CERAMIC DISC	0.0047 $\mu$ F, 400 D00847208K010	1	D/RDS(Only)
R380	METAL FILM	180 ohm 1/5 W J C06001816P520	1		CN751	CONNECTOR, CTB 0240 BL102R	L033588502400	1	D/RDS(Only)
R381	CARBON FILM	10 kohm 1/5 W J C00001036P520	1		SW752	PUSH SWITCH	G000041610000	1	D/RDS(Only)
R382	METAL FILM	1 kohm 1/5 W J C06001026P520	1	A(Only)		* ASSEMBLY P.C.BOARD SUPPLY ( PCB 9, 10, 11, 12 )			
R383/R384	CARBON FILM	10 kohm 1/5 W J C00001036P520	2	A(Only)		PCB9	ASSEMBLY P.C.BOARD SPEAKER TERMINAL		
						CAPACITORS			
					C451	CERAMIC DISC	0.0022 $\mu$ F 50 V Z D004222097060	1	
					C454/C455	CERAMIC DISC	0.0022 $\mu$ F 50 V Z D004222097060	2	
					C458	CERAMIC DISC	0.0022 $\mu$ F 50 V Z D004222097060	1	
					C459/C460	CERAMIC DISC	0.0047 $\mu$ F 100 V Z D004472097060	1	
					C461/C462	MYLAR	0.047 $\mu$ F 100 V J D02047306C060	2	
					C464	CERAMIC DISC	0.0047 $\mu$ F 50 V Z D004472097060	1	
					C466	MYLAR	0.047 $\mu$ F 100 V J D02047306C060	1	



Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
C467	CERAMIC DISC	0.0047 $\mu$ F 100 V Z D004472097060	1		C805/C806	ELECTROLYTIC SG	47 $\mu$ F 25 V M D040470084100	2	
L201C	COIL INDUCTOR, 0.5 $\mu$ H	D330900001320	1		C807	ELECTROLYTIC SG	1 $\mu$ F 50 V M D040010087050	1	
CN204	CONNECTORS				C808	CERAMIC TUBULAR	0.001 $\mu$ F 50 V K D005102077530	1	
CN205	LEAD ASSY, 3P, 100mm	L021031034310	1		C809	ELECTROLYTIC SG	22 $\mu$ F 16 V M D040220083100	1	
CN210	LEAD ASSY, 8P, 240mm	L020082441660	1		C810	ELECTROLYTIC SG	1 $\mu$ F 50 V M D040010087050	1	
CP452	LEAD ASSY, 3P, 300mm	L020033041660	1		C811	CERAMIC TUBULAR	0.001 $\mu$ F 50 V K D005102077530	1	
	PULG, 4P	L104202000400	1		C812	ELECTROLYTIC SG	10 $\mu$ F 35 V M D040100085100	1	
R235C	RESISTORS				C813-C816	ELECTROLYTIC SG	47 $\mu$ F 25 V M D040470084100	4	
R451-R453	METAL FILM	10 ohm 1 W J C060010065520	1		C817	CERAMIC TUBULAR	0.1 $\mu$ F 50 V K D005103077530	1	
	METAL FILM	10 ohm 1 W J C060010065520	3		C818-C820	CERAMIC TUBULAR	100 pF 50 V J D001101077530	3	
PCB10	ASSEMBLY P.C.BOARD SUPPLY				C821-C823	MYLAR	0.1 $\mu$ F 63 V K D020104078060	3	
C400	CAPACITORS				C824	CERAMIC TUBULAR	680 pF 50 V D005681077530	1	
C401	MYLAR	0.1 $\mu$ F 250 V M D02010408H210	1		C825	ELECTROLYTIC SG	10 $\mu$ F 50 V M D040100087050	1	
C402	CERAMIC DISC	0.0047 $\mu$ F 400 V D00847208K010	1		C826	MYLAR	0.1 $\mu$ F 63 V K D020104078060	1	
C403/C404	ELECTROLYTIC SG	1000 $\mu$ F 16 V M D040102083200	1		C827	ELECTROLYTIC SG	4.7 $\mu$ F 50 V M D04047087100	1	
C405	MYLAR	0.047 $\mu$ F 100 V J D02047306C060	2		C828/C829	MYLAR	0.22 $\mu$ F 63 V K D020224078060	2	
C406	ELECTROLYTIC SG	100 $\mu$ F 50 V M D040101087100	1		C830-C833	MYLAR	0.33 $\mu$ F 63 V K D020334078060	4	
C407	ELECTROLYTIC SG	1 $\mu$ F 50 V M D040010087050	1		C834-C837	MYLAR	0.022 $\mu$ F 100 V J D02022306C060	4	
C408	CERAMIC TUBULAR	0.1 $\mu$ F 50 V D005104097530	1		C838	MYLAR	0.15 $\mu$ F 63 V K D020154078060	1	
	ELECTROLYTIC SG	1 $\mu$ F 50 V M D040010087050	1		C839	ELECTROLYTIC SG	4.7 $\mu$ F 50 V M D04047087100	1	
CP400	CONNECTORS				C840/C841	MYLAR	0.22 $\mu$ F 63 V K D020224078060	2	
CP751	AC PLUG	L104020040000	1		C842	ELECTROLYTIC SG	10 $\mu$ F 50 V M D040010087050	1	
CP401	PLUG, BL102R	L033588502400	1		C843-C845	MYLAR	0.01 $\mu$ F 100 V J D02010306C060	3	
CP402	PLUG, 2P	L108202000220	1		C846	ELECTROLYTIC SG	100 $\mu$ F 10 V M D040101082060	1	
CP302	PLUG, 4P	L102526704010	1		C847	MYLAR	0.1 $\mu$ F 63 V K D020104078060	1	
	PLUG, 8P	L101220080000	1		C848/R	ELECTROLYTIC SG	10 $\mu$ F 50 V M D040100087050	2	
D401-D407	DIODES				C849-C851	ELECTROLYTIC SG	4.7 $\mu$ F 50 V M D04047087100	3	
D408	RECTIFIER, 1N4003	K040400300520	7		C852/C853	ELECTROLYTIC SG	47 $\mu$ F 25 V M D040470084100	2	
D409	ZENER, UZ 9.1V BSC	K06009R124520	1		C854	ELECTROLYTIC SG	4.7 $\mu$ F 50 V M D04047087100	1	
D410	ZENER, UZ 7.5V BSB	K06007R524520	1		C855/C856	ELECTROLYTIC SG	47 $\mu$ F 25 V M D040470084100	2	
D411	ZENER, UZ 9.1V BSC	K06009R124520	1		C857	ELECTROLYTIC SG	10 $\mu$ F 50 V M D040100087050	1	
D412	ZENER, UZ 12V BSC	K060120024520	1		C858/C859	ELECTROLYTIC SG	4.7 $\mu$ F 50 V M D04047087100	2	
	ZENER, UZ 4.3V BSA	K06004R314520	1		C860	ELECTROLYTIC SG	1 $\mu$ F 50 V M D040010087050	1	
F400	FUSES				C861	CERAMIC TUBULAR	0.001 $\mu$ F 50 V K D005102077530	1	
F400	S.B 6A/125V	G650602121150	1	A	C862	ELECTROLYTIC SG	22 $\mu$ F 16 V M D040220083100	1	
F401	T4A/250V	G650402251160	1	D/RDS	C863	ELECTROLYTIC SG	1 $\mu$ F 50 V M D040010087050	1	
F402	T2A/250V	G650202251160	1	D/RDS	C864	CERAMIC TUBULAR	0.001 $\mu$ F 50 V K D005102077530	1	
F402	NB350mA/125V	G650351121160	1	A	C865	ELECTROLYTIC SG	0.47 $\mu$ F 50 V M D04047087100	1	
F402	T50mA	G650501251160	1	D/RDS	C866	ELECTROLYTIC SG	10 $\mu$ F 50 V M D040100087050	1	
R401	RESISTORS				C867	CERAMIC TUBULAR	680 pF 50 V D005681077530	1	
R402	METAL FILM	10 ohm 1 W J C060010065520	1		C868	MYLAR	0.0056 $\mu$ F 100 V J D02056206C060	1	
R403	METAL FILM	470 ohm 1/5 W J C06004716P520	1		C869	MYLAR	0.0047 $\mu$ F 100 V J D02047206C060	1	
R404	CARBON FILM	10 kohm 1/5 W J C00001036P520	1		C870	ELECTROLYTIC SG	10 $\mu$ F 50 V M D040100087050	1	
R405	METAL FILM	330 ohm 1/5 W J C06003316P520	1		C871	CERAMIC TUBULAR	470 pF 50 V M D005471077530	1	
R406	CARBON FILM	15 kohm 1/5 W J C00001536P520	1		C872	ELECTROLYTIC SG	10 $\mu$ F 50 V M D040100087050	1	
R407	METAL FILM	3.3 Mohm 1/2 W J C060033564520	1		C873	ELECTROLYTIC SG	1 $\mu$ F 50 V M D040010087050	1	
R408	METAL FILM	2.2 kohm 1/5 W J C06002226P520	1		C874	ELECTROLYTIC SG	10 $\mu$ F 50 V M D040100087050	1	
	METAL FILM	56 ohm 1 W J C060056065520	1		C875	MYLAR	0.022 $\mu$ F 100 V J D02022306C060	1	
IC400	MISCELLANEOUS				C876	MYLAR	0.0047 $\mu$ F 100 V J D02047206C060	1	
Q400	GD7806	J126780600000	1		C877	MYLAR	0.0039 $\mu$ F 100 V J D02039206C060	1	
RLY400	2SC1740S, NPN	J502174050010	1		C878	MYLAR	0.068 $\mu$ F 63 V K D020683078060	1	
	HRCR313DC12V	G680121630000	1		C879	MYLAR	0.22 $\mu$ F 63 V K D020224078060	1	
PCB11	ASSEMBLY P.C.BOARD PRE IN/OUT				C880	MYLAR	0.1 $\mu$ F 63 V K D020104078060	1	
C651-C658	CAPACITORS				C881	ELECTROLYTIC SG	220 $\mu$ F 10 V M D040221082100	1	
CN654	CONNECTORS				C882	ELECTROLYTIC SG	220 $\mu$ F 16 V M D040221083100	1	
CP601	LEAD ASSY, 7P, 120mm	L022071234320	1		C883	ELECTROLYTIC SG	220 $\mu$ F 10 V M D040221082100	1	
CP602	PLUG, 3P	L101220030000	1		C884/C885	MYLAR	0.1 $\mu$ F 63 V K D020104078060	2	
CP654	PLUG, 6P	L101220060000	1		C886-C888	CERAMIC TUBULAR	100 pF 50 V J D001101077530	3	
CN209	LEAD ASSY, 9P, 240mm	L022092434320	1		C889/C890	ELECTROLYTIC SG	220 $\mu$ F 16 V M D040221083100	2	
	LEAD ASSY, 3P, 450mm	L022034537320	1		C891	CERAMIC TUBULAR	150 pF 50 V D005151077530	1	
D652-D654	DIODES				C892	MYLAR	0.022 $\mu$ F 100 V J D02022306C060	1	
	1N4148, SWITCHING	K000414801520	3		C893	CERAMIC DISC	680 pF 50 V J D022881067050	1	
Q651	TRANSISTORS				C894	ELECTROLYTIC SG	4.7 $\mu$ F 50 V M D04047087100	1	
Q653-Q656	KTD1303, NPN	J503130300050	1		C895	ELECTROLYTIC SG	470 $\mu$ F 10 V M D04071082100	1	
Q658-Q660	KTD1303, NPN	J503130300050	4		C896	ELECTROLYTIC SG	4.7 $\mu$ F 50 V M D04047087100	1	
	DTA114YS, PNP	J6000114Y0010	3		C897	CERAMIC DISC	680 pF 50 V M D022881067050	1	
R651/R652	RESISTORS				C898	MYLAR	0.022 $\mu$ F 100 V J D02022306C060	1	
R653	METAL FILM	470 ohm 1/5 W J C06004716P520	2		C899	CERAMIC TUBULAR	150 pF 50 V D005151077530	1	
R654/R655	METAL FILM	1 kohm 1/5 W J C06001026P520	1		C900	MYLAR	0.15 $\mu$ F 63 V K D020154078060	1	
R656/R657	METAL FILM	2.2 kohm 1/5 W J C06002226P520	2		C901-C903	CERAMIC TUBULAR	100 pF 50 V J D001101077530	3	
R658/R659	METAL FILM	1 kohm 1/5 W J C06001026P520	1		C904/C905	ELECTROLYTIC SG	47 $\mu$ F 25 V M D040470084100	2	
R660/R661	METAL FILM	2.2 kohm 1/5 W J C06002226P520	2		C906	ELECTROLYTIC SG	1 $\mu$ F 50 V M D040010087050	1	
R662	METAL FILM	1 kohm 1/5 W J C06001026P520	1		C907	MYLAR	0.01 $\mu$ F 100 V J D02010306C060	1	
R663	METAL FILM	2.2 kohm 1/5 W J C06002226P520	1		C908/C909	ELECTROLYTIC SG	47 $\mu$ F 25 V M D040470084100	2	
R664	METAL FILM	1 kohm 1/5 W J C06001026P520	1		C910-C912	CERAMIC TUBULAR	100 pF 50 V J D001101077530	4	
R665/R668	METAL FILM	2.2 kohm 1/5 W J C06002226P520	1		C913	ELECTROLYTIC SG	100 $\mu$ F 16 V M D040101083100	1	
R667	METAL FILM	1 kohm 1/5 W J C06001026P520	1		C914/C915	ELECTROLYTIC SG	100 $\mu$ F 10 V M D040101082060	2	
R670-R672	METAL FILM	470 ohm 1/5 W J C06004716P520	1		C916	MYLAR	0.047 $\mu$ F 100 V J D02047306C060	1	
	CARBON FILM	47 kohm 1/5 W J C00004736P520	3		C917	ELECTROLYTIC SG	10 $\mu$ F 50 V M D040100087050	1	
PCB12	ASSEMBLY P.C.BOARD SURROUND				C918/C919	ELECTROLYTIC SG	220 $\mu$ F 10 V M D040221082100	2	
C801/LR	CAPACITORS				C920	CERAMIC TUBULAR	680 pF 50 V D005681077530	1	
C802/LR	ELECTROLYTIC SG	4.7 $\mu$ F 50 V M D04047087100	2		C921/C922	CERAMIC TUBULAR	0.1 $\mu$ F 50 V D005104097530	2	
C804/LR	ELECTROLYTIC SG	4.7 $\mu$ F 50 V M D04047087100	2		C924-C926	CERAMIC TUBULAR	0.1 $\mu$ F 50 V D005104097530	3	
					CN102	CONNECTORS			
					CP303	PLUG, 8P	L111507600810	1	
					CP602	PLUG, 12P	L101220120000	1	
					CP654	PLUG, 6P	L101220060000	1	
						PLUG, 7P	L101220070000	1	
					D801/D802	DIODES			
					D803	1N4148, SWITCHING	K000414801520	2	
					D804/D805	ZENER, UZ 12V BSC	K060120024520	1	
					D906/D907	1N4148, SWITCHING	K000414801520	2	
						ZENER, UZ 6.8V BSC	K06006R814520	2	
					IC801-IC805	INTEGRATED CIRCUIT			
					IC806	KIA4559P/KIA75559P	J121455900010	5	
					IC807	MC14094BCP	J040140840000	1	
					IC808	SSM-2126	J081212600000	1	
					IC809	LV-1000	J089100000010	1	
						256K D-RAM	J001612560000	1	

Ref. No.	Description	Part No.	Q'ty	Version	Ref. No.	Description	Part No.	Q'ty	Version
IC810	MC14094BCP	J040140940000	1		PCB1	ASSEMBLY P.C.BOARD TUNER	7028040776500		A
IC811	LC7822	J080782200000	1		PCB1	ASSEMBLY P.C.BOARD TUNER	7028040789000		D
IC812	TC9299	J084929900000	1		PCB1	ASSEMBLY P.C.BOARD TUNER	7028040770600		K
IC813	TA7291S	J127729100000	1		PCB1	ASSEMBLY P.C.BOARD TUNER	7028040790800		RDS
TRANSISTORS									
Q801	BKTA1267Y, PNP	J5001267Y0050	1		PCB2	ASSEMBLY P.C.BOARD MAIN	7028040775000		A
Q802-Q804	DTC114YS, NPN	J6020114Y0050	3		PCB2	ASSEMBLY P.C.BOARD MAIN	7028040787500		D
Q805	DTA114YS, PNP	J6000114Y0010	1		PCB2	ASSEMBLY P.C.BOARD MAIN	7028040769100		K
Q806	BKTC3199/2SC3199Y, NPN	J5023199Y0050	1		PCB2	ASSEMBLY P.C.BOARD MAIN	7028040789300		RDS
RESISTORS									
R801/LR	CARBON FILM	100 kohm 1/5 W J C00001046P520	2		PCB3	ASSEMBLY P.C.BOARD AMP302	7028040776400		A
R802	CARBON FILM	22 kohm 1/5 W J C00002236P520	1		PCB3	ASSEMBLY P.C.BOARD AMP302	7028040788900		D
R803/LR	CARBON FILM	100 kohm 1/5 W J C00001046P520	2		PCB3	ASSEMBLY P.C.BOARD AMP302	7028040770500		K
R804/LR	METAL FILM	470 ohm 1/5 W J C06004716P520	2		PCB3	ASSEMBLY P.C.BOARD AMP302	7028040790700		RDS
R805/LR	METAL FILM	1 kohm 1/5 W J C06001026P520	2		▶ THE ASS'Y PCB AMP302(PCB3) INCLUDE BELOW.				
R806/LR	CARBON FILM	100 kohm 1/5 W J C00001046P520	2		① THE ASS'Y PCB CNT-2.				
R807/R808	METAL FILM	220 ohm 1/5 W J C06002216P520	2		PCB4	ASSEMBLY P.C.BOARD AMP202	7028040776700		A
R809	METAL FILM	1 kohm 1/5 W J C06001026P520	1		PCB4	ASSEMBLY P.C.BOARD AMP202	7028040789200		D
R810	CARBON FILM	1 Mohm 1/5 W J C00001056P520	1		PCB4	ASSEMBLY P.C.BOARD AMP202	7028040770800		K
R811	METAL FILM	1.5 kohm 1/5 W J C06001526P520	1		PCB4	ASSEMBLY P.C.BOARD AMP202	7028040791000		RDS
R812	CARBON FILM	5.1 kohm 1/5 W J C00005126P520	1		PCB5	ASSEMBLY P.C.BOARD FRONT	7028040775200		A
R813	CARBON FILM	10 kohm 1/5 W J C00001036P520	1		PCB5	ASSEMBLY P.C.BOARD FRONT	7028040787700		D
R814	METAL FILM	1 kohm 1/5 W J C06001026P520	1		PCB5	ASSEMBLY P.C.BOARD FRONT	7028040769300		K
R815	CARBON FILM	1 Mohm 1/5 W J C00001056P520	1		PCB5	ASSEMBLY P.C.BOARD FRONT	7028040789500		RDS
R816	METAL FILM	4.7 kohm 1/5 W J C06004726P520	1		▶ THE ASS'Y PCB FRONT(PCB5) INCLUDE BELOW.				
R817	METAL FILM	1.5 kohm 1/5 W J C06001526P520	1		① THE ASS'Y PCB TONE (PCB6).				
R818	CARBON FILM	10 kohm 1/5 W J C00001036P520	1		② THE ASS'Y PCB SPKR SWITCH (PCB7).				
R819	METAL FILM	1 kohm 1/5 W J C06001026P520	1		③ THE ASS'Y PCB VCR2 FRONT (PCB8).				
R820-R823	METAL FILM	220 ohm 1/5 W J C06002216P520	4		④ THE ASS'Y PCB SWITCH1.				
R824-R826	METAL FILM	1 kohm 1/5 W J C06001026P520	3		⑤ THE ASS'Y PCB SWITCH2.				
R827/R828	CARBON FILM	7.5 kohm 1/5 W J C00007526P520	2		PCB9	ASSEMBLY P.C.BOARD SUPPLY	7028040775900		A
R829	CARBON FILM	47 kohm 1/5 W J C00004736P520	1		PCB9	ASSEMBLY P.C.BOARD SUPPLY	7028040788400		D
R830	CARBON FILM	15 kohm 1/5 W J C00001536P520	1		PCB9	ASSEMBLY P.C.BOARD SUPPLY	7028040770000		K
R831	CARBON FILM	47 kohm 1/5 W J C00004736P520	1		PCB9	ASSEMBLY P.C.BOARD SUPPLY	7028040790200		RDS
R832	CARBON FILM	15 kohm 1/5 W J C00001536P520	1		▶ THE ASS'Y PCB SUPPLY (PCB10) INCLUDE BELOW.				
R833	CARBON FILM	10 Mohm 1/5 W J C00001066P520	1		① THE ASS'Y PCB SPEAKER (PCB9).				
R834-R836	CARBON FILM	22 kohm 1/5 W J C00002236P520	3		② THE ASS'Y PCB PRE IN/OUT (PCB11).				
R837/LR	CARBON FILM	6.8 kohm 1/5 W J C00006826P520	2		③ THE ASS'Y PCB SURROUND (PCB12).				
R838/LR	CARBON FILM	100 kohm 1/5 W J C00001046P520	2						
R839/R840	CARBON FILM	10 kohm 1/5 W J C00001036P520	2						
R841-R843	CARBON FILM	22 kohm 1/5 W J C00002236P520	3						
R844	METAL FILM	1.5 kohm 1/5 W J C06001526P520	1						
R845	METAL FILM	680 ohm 1/5 W J C06006816P520	1						
R846	METAL FILM	1.8 kohm 1/5 W J C06001826P520	1						
R847/R848	METAL FILM	220 ohm 1/5 W J C06002216P520	2						
R849/R850	CARBON FILM	22 kohm 1/5 W J C00002236P520	2						
R851/R852	METAL FILM	220 ohm 1/5 W J C06002216P520	2						
R854/R855	CARBON FILM	100 kohm 1/5 W J C00001046P520	2						
R856	CARBON FILM	47 kohm 1/5 W J C00004736P520	1						
R857/R858	CARBON FILM	100 kohm 1/5 W J C00001046P520	2						
R859	METAL FILM	1 kohm 1/5 W J C06001026P520	1						
R860	CARBON FILM	1 Mohm 1/5 W J C00001056P520	1						
R861	METAL FILM	1.5 kohm 1/5 W J C06001526P520	1						
R862	METAL FILM	3.3 kohm 1/5 W J C06003326P520	1						
R863	CARBON FILM	10 kohm 1/5 W J C00001036P520	1						
R864	METAL FILM	1 kohm 1/5 W J C06001026P520	1						
R865	CARBON FILM	1 Mohm 1/5 W J C00001056P520	1						
R866	METAL FILM	1.5 kohm 1/5 W J C06001526P520	1						
R867	METAL FILM	4.7 kohm 1/5 W J C06004726P520	1						
R868	CARBON FILM	10 kohm 1/5 W J C00001036P520	1						
R869	METAL FILM	1 kohm 1/5 W J C06001026P520	1						
R870	METAL FILM	3.9 kohm 1/5 W J C06003926P520	1						
R871	CARBON FILM	39 kohm 1/5 W J C00003936P520	1						
R872/R873	CARBON FILM	8.2 kohm 1/5 W J C00008226P520	2						
R874	CARBON FILM	15 kohm 1/5 W J C00001536P520	1						
R875	METAL FILM	3.3 kohm 1/5 W J C06003326P520	1						
R876	CARBON FILM	47 kohm 1/5 W J C00004736P520	1						
R877	CARBON FILM	1 Mohm 1/5 W J C00001056P520	1						
R878	METAL FILM	56 ohm 1/5 W J C06005606P520	1						
R879	CARBON FILM	10 kohm 1/5 W J C00001036P520	1						
R880	METAL FILM	56 ohm 1 W J C06005606P520	1						
R881	CARBON FILM	5.6 kohm 1/5 W J C00005626P520	1						
R882	CARBON FILM	47 kohm 1/5 W J C00004736P520	1						
R883-R885	METAL FILM	1 kohm 1/5 W J C06001026P520	3						
R886/R887	CARBON FILM	220 kohm 1/5 W J C00002246P520	2						
R888	METAL FILM	1 kohm 1/5 W J C06001026P520	1						
R889	CARBON FILM	47 kohm 1/5 W J C00004736P520	1						
R890	METAL FILM	220 ohm 1/5 W J C06002216P520	1						
R891-R893	METAL FILM	1 kohm 1/5 W J C06001026P520	3						
R894	CARBON FILM	100 kohm 1/5 W J C00001046P520	1						
R895-R897	METAL FILM	220 ohm 1/5 W J C06002216P520	3						
R898-R900	METAL FILM	1 kohm 1/5 W J C06001026P520	3						
R901	METAL FILM	820 ohm 1/5 W J C06008216P520	1						
R902	METAL FILM	220 ohm 1/5 W J C06002216P520	1						
R903	CARBON FILM	7.5 kohm 1/5 W J C00007526P520	1						
R904	CARBON FILM	10 kohm 1/5 W J C00001036P520	1						
R905	CARBON FILM	2.2 kohm 1/5 W J C00002226P520	1						
R906/R907	METAL FILM	150 ohm 1 W J C06001516P520	2						
R908	CARBON FILM	8.2 kohm 1/5 W J C00008226P520	1						
R909	CARBON FILM	100 kohm 1/5 W J C00001046P520	1						
R910	METAL FILM	2.2 kohm 1/5 W J C06002226P520	1						
SEMI FIXED VARIABLE RESISTORS									
VR801	50KAX4	C495145303200	1						
VR802	10K(B)	C541103115000	1						
MISCELLANEOUS									
X-TAL801	CST8M	E830800000050	1						

\* Parts without Parts No are not supplied.

\* Parts with blank version are available in common.

### PRODUCT SAFETY NOTICE

Products marked with  $\Delta$  have special characteristics important to safety. If you replace any of these components, read carefully the product safety notice in this manual. Don't degrade the safety of the product through improper servicing. Resistor/Capacitor tolerance - D : ( $\pm 0.5\%$ ), J : ( $\pm 5\%$ ), K : ( $\pm 10\%$ ), M : ( $\pm 20\%$ ), Z : (+80, - 20%)

\* Parts without Parts No are not supplied.

\* Parts with blank version are available in common.

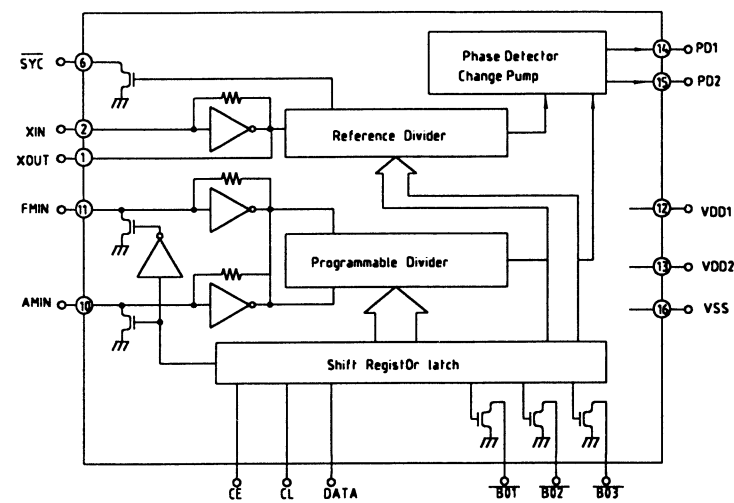
#### PRODUCT SAFETY NOTICE

Products marked with  $\Delta$  have special characteristics important to safety. If you replace any of these components, read carefully the product safety notice in this manual. Don't degrade the safety of the product through improper servicing. Resistor/Capacitor tolerance - D : ( $\pm 0.5\%$ ), J : ( $\pm 5\%$ ), K : ( $\pm 10\%$ ), M : ( $\pm 20\%$ ), Z : (+80, - 20%)

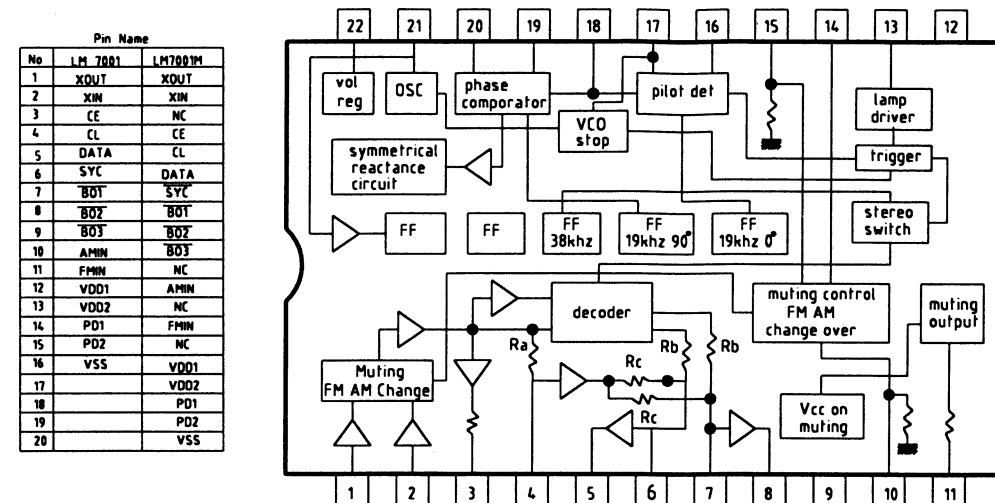
## IC FUNCTIONAL BLOCK DIAGRAM

Model No. : R-725/RDS · AV-725

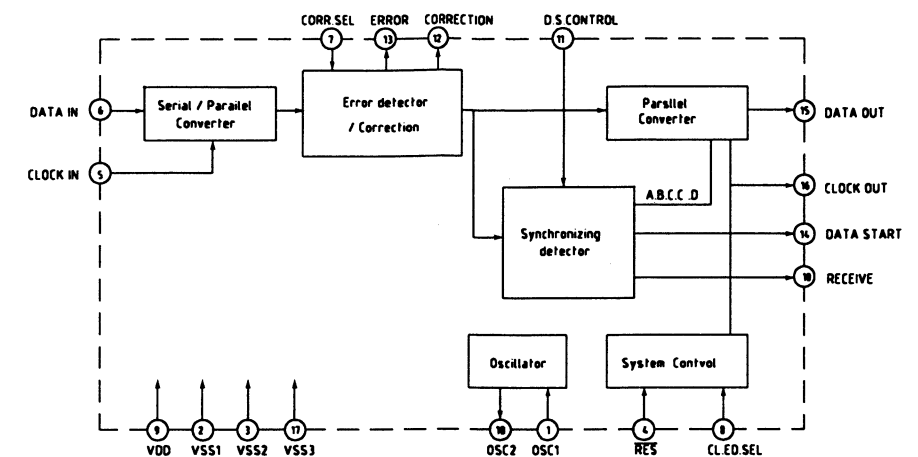
IC 1 : LM7001M



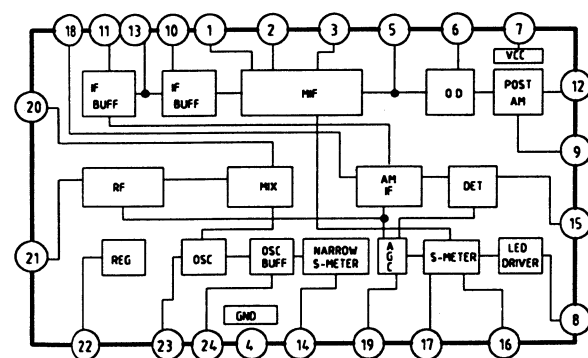
IC 3 : LA3401



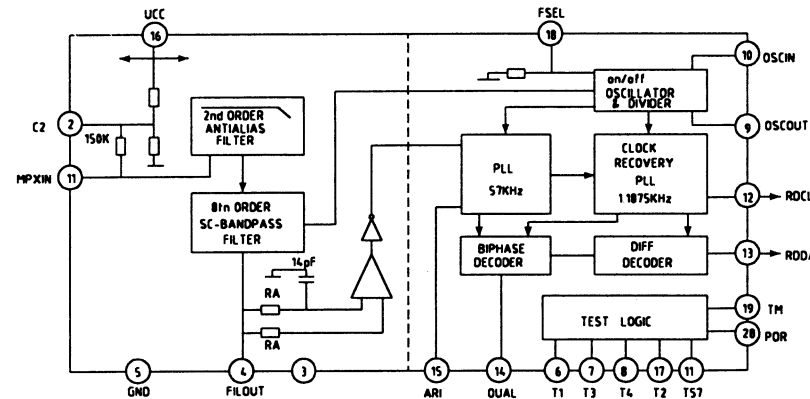
IC 5 : LC7073M



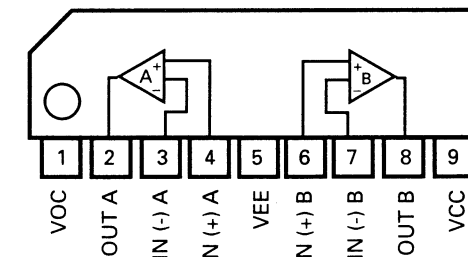
IC 2 : LA1266G



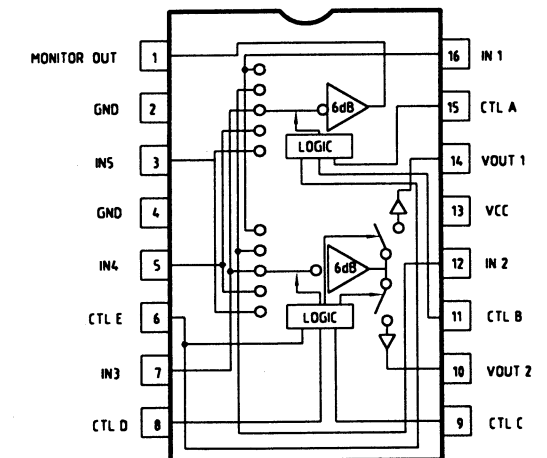
IC 4 : TDA7330BD



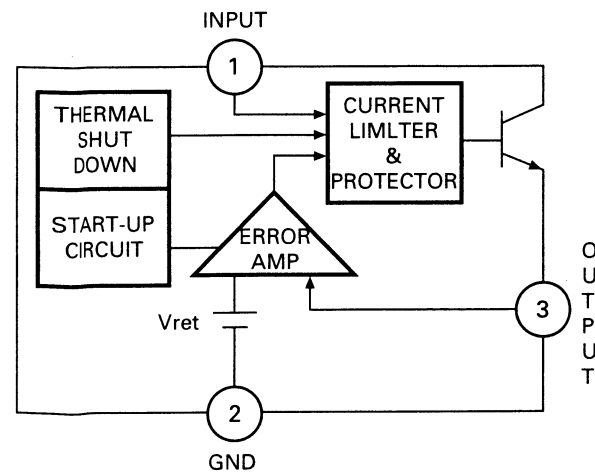
IC 101, 107, 501, 503 : KIA4559



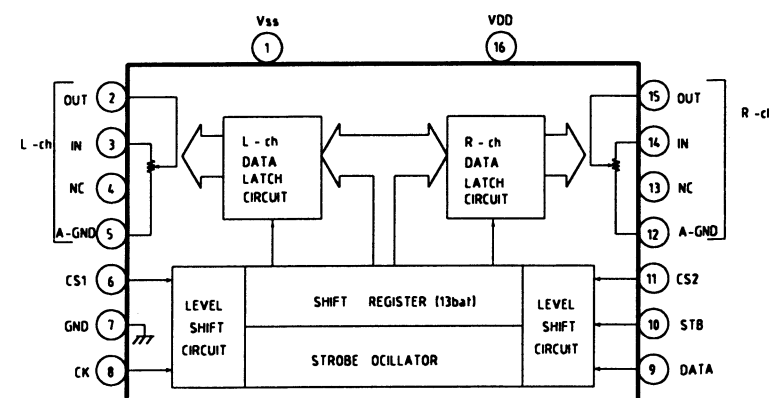
IC 104 : BA7625



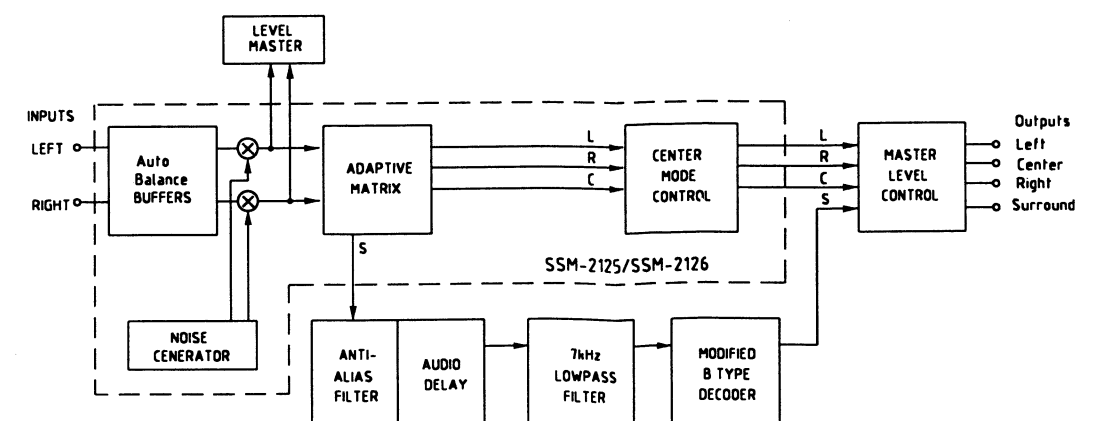
IC 108, 400 : KA7806/GD7806  
IC 109 : GD7815



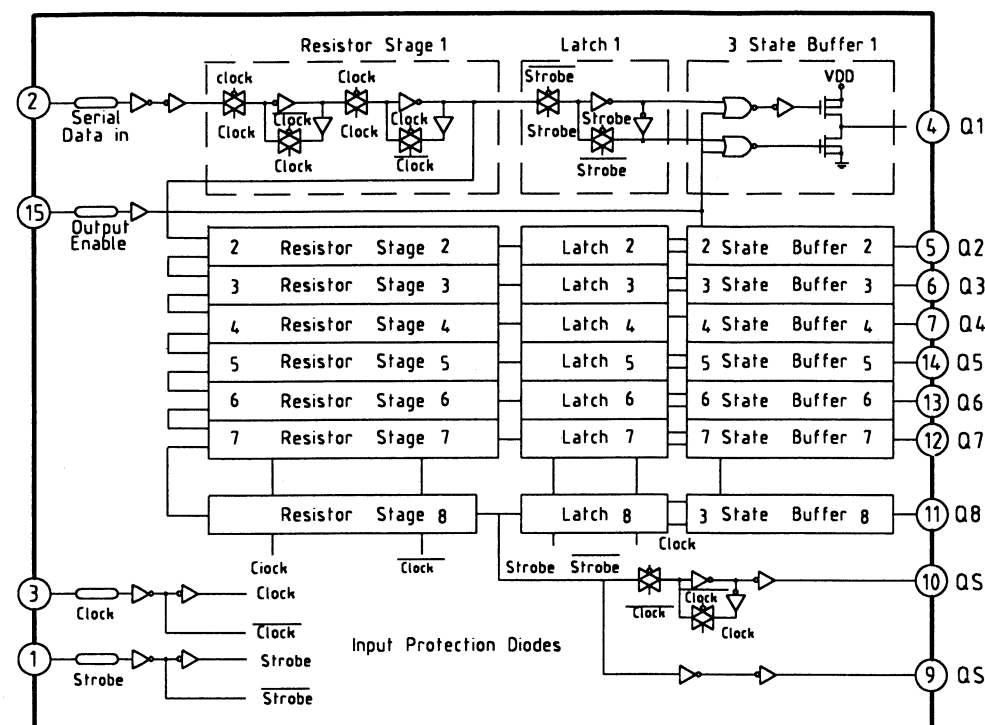
IC 502, 812 : TC9299



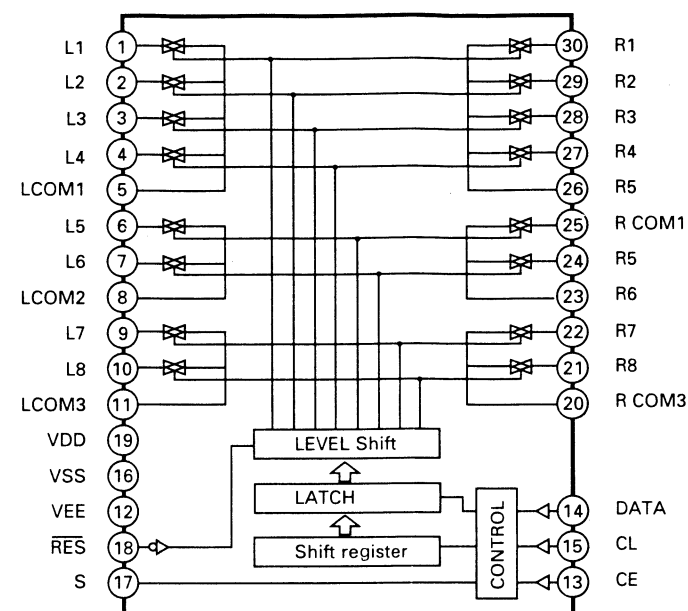
IC 807 : SSM-2126



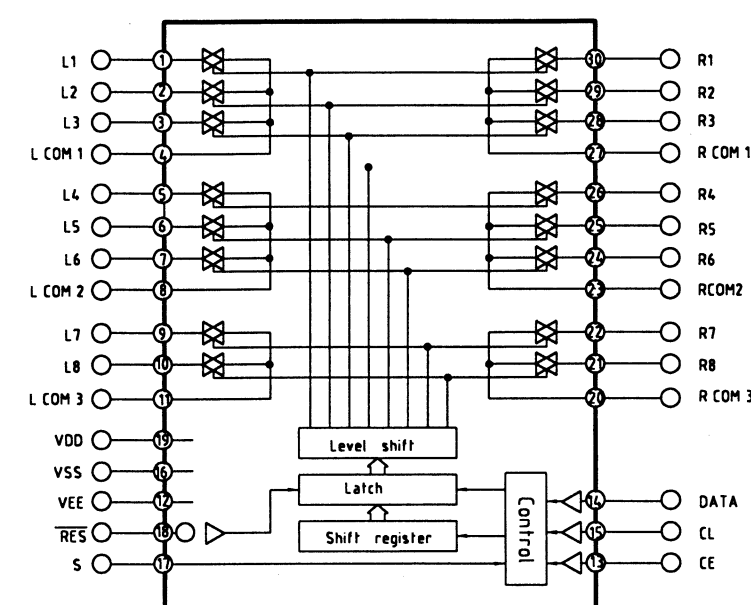
# IC 106, 806, 810 : MC14094BCP



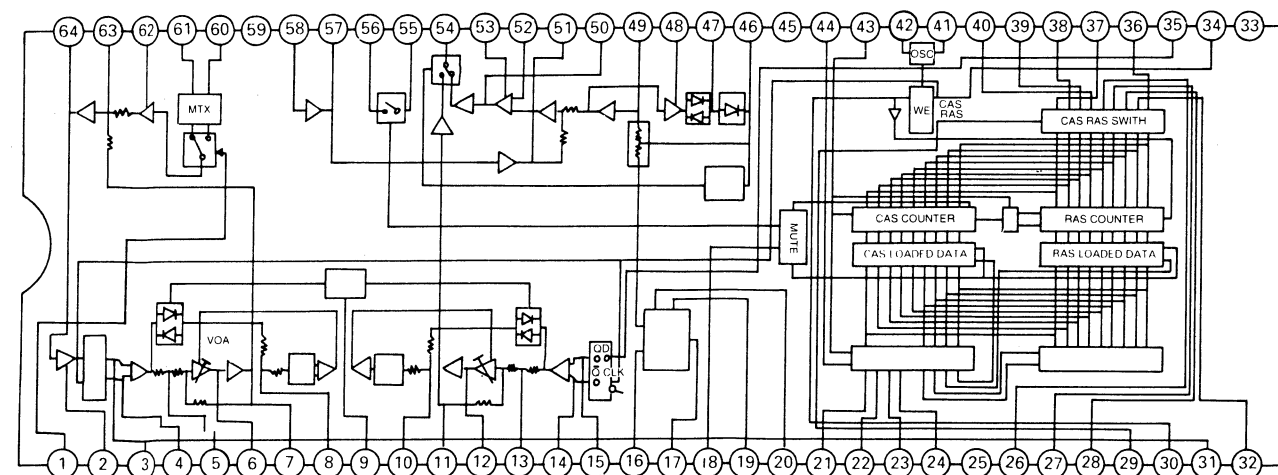
# IC 102, 103 : LC7821



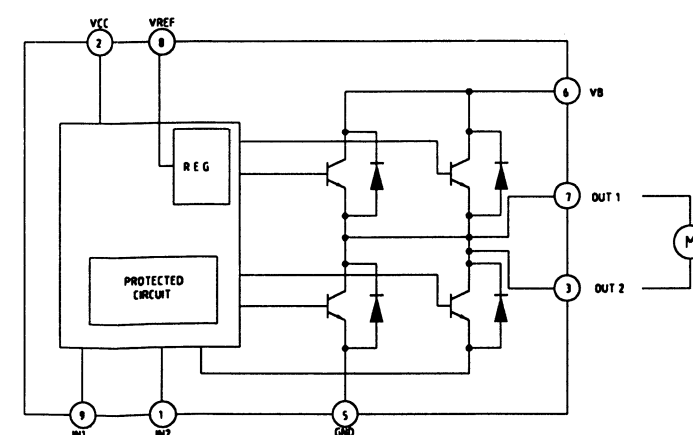
# IC 811 : LC7822



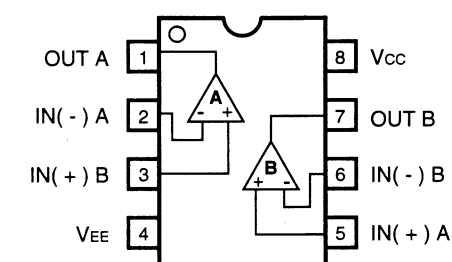
# IC 808 : LV-1000



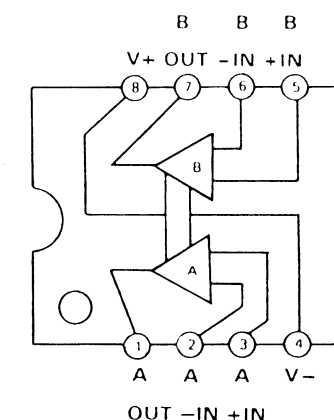
# IC 813 : TA7291S



# IC 601 : NJM2068DD

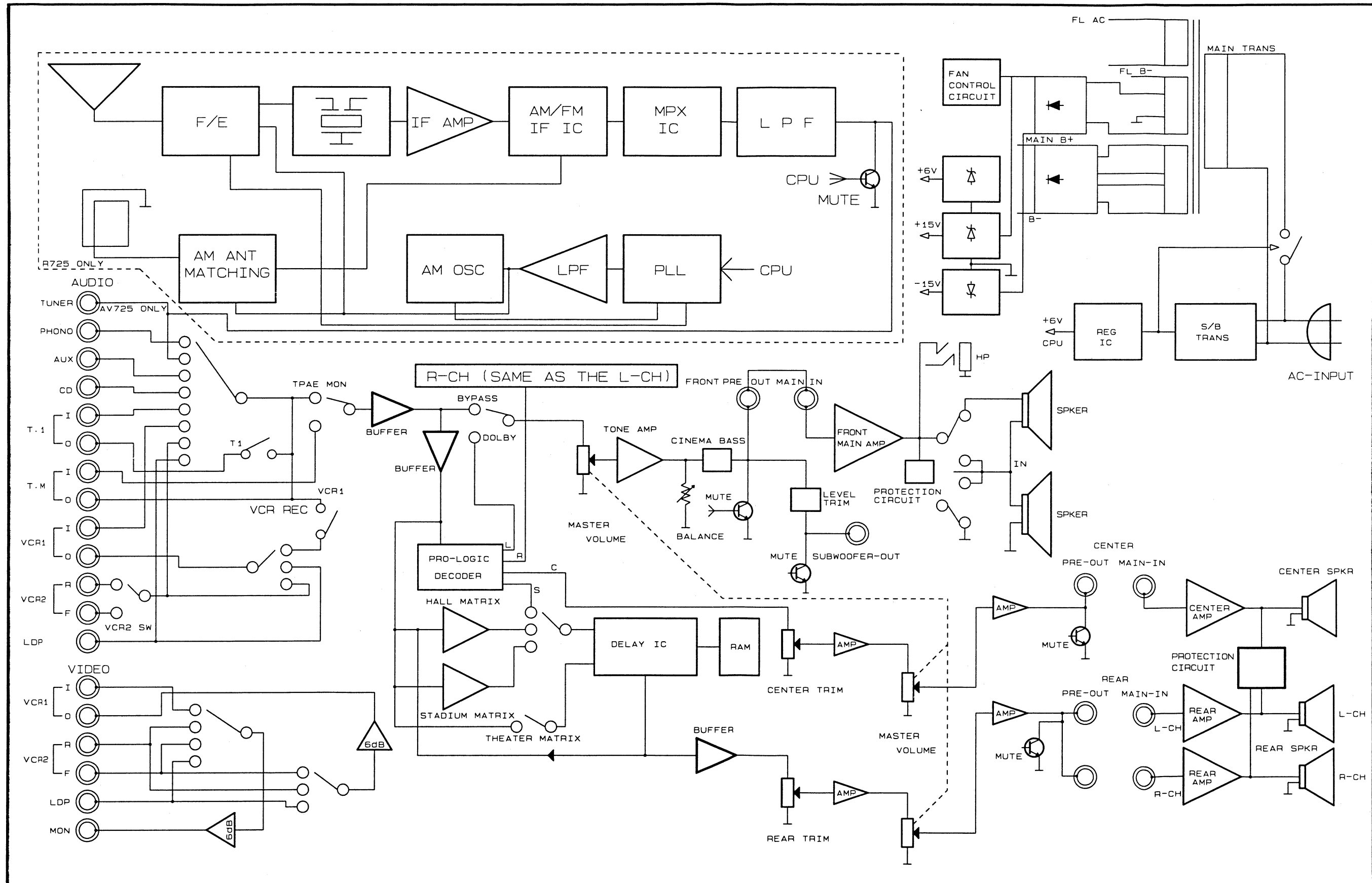


# IC 801-805 : KIA 4559P



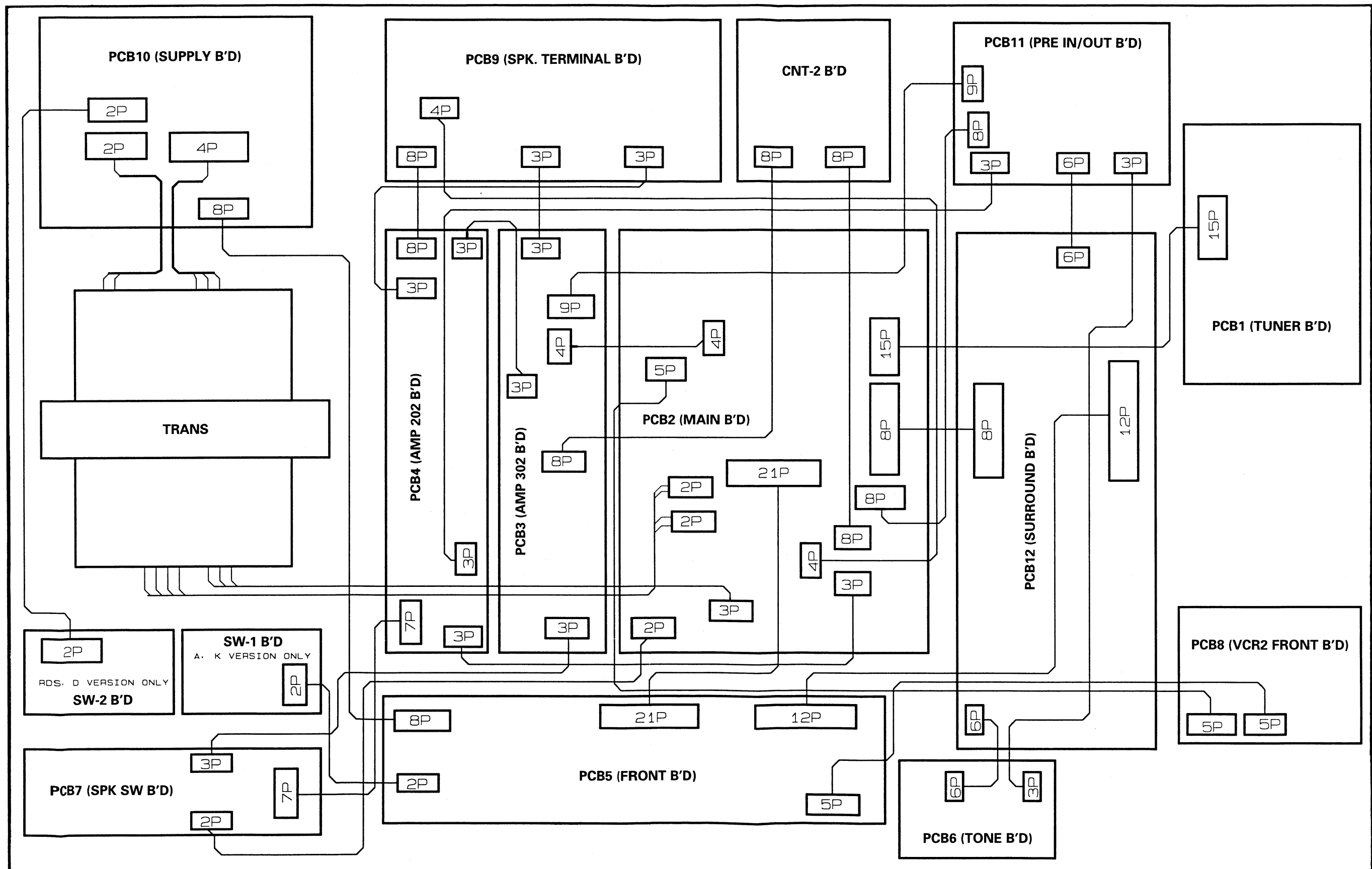
# BLOCK DIAGRAM

Model No. : R-725/RDS · AV-725



# WIRING DIAGRAM

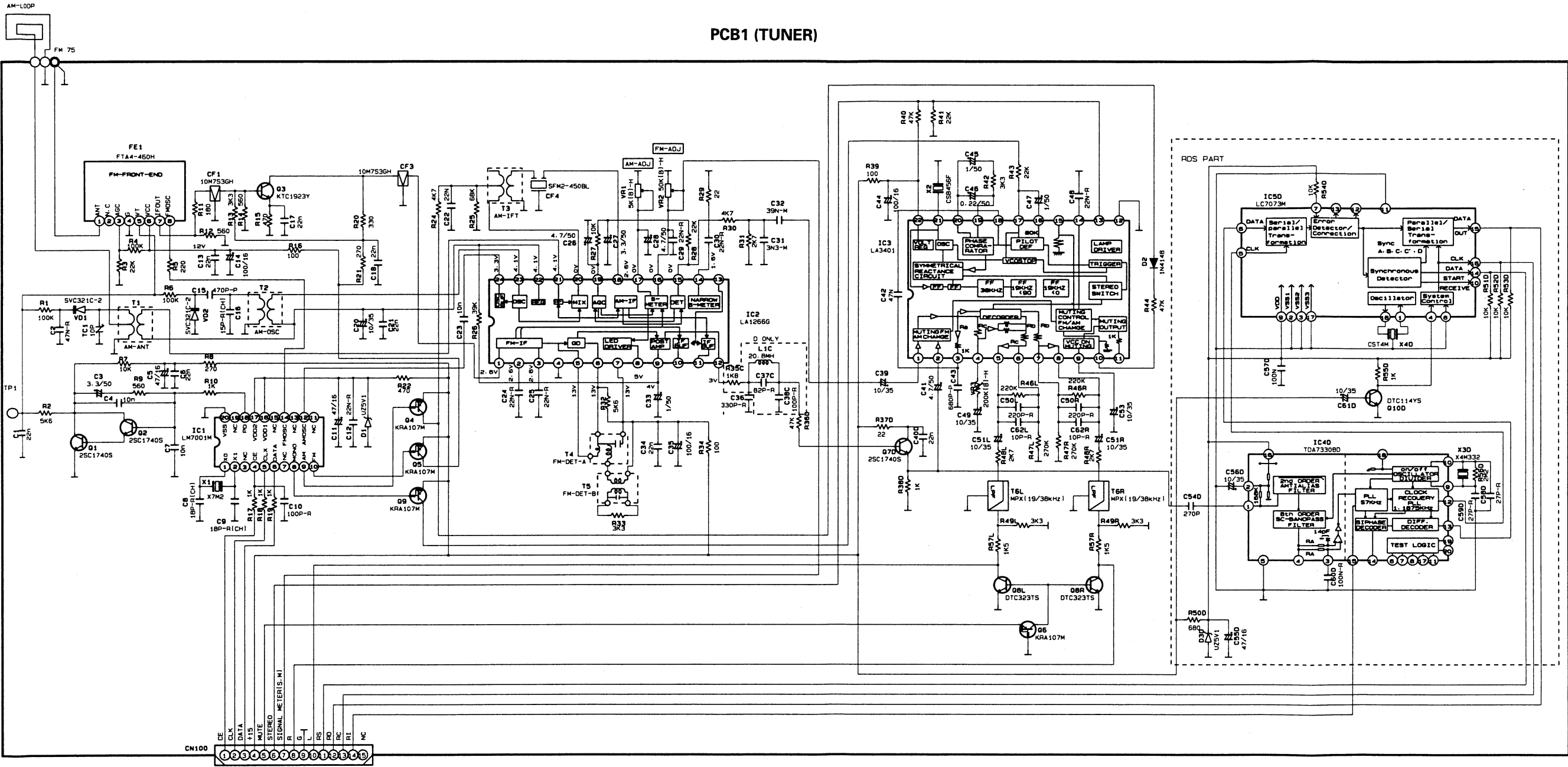
Model No. : R-725/RDS · AV-725




SCHEMATIC DIAGRAM (I)

Model No. : R-725/RDS · AV-725

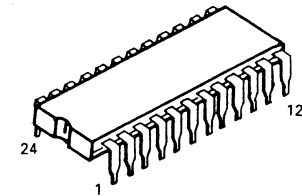
PCB1 (TUNER)



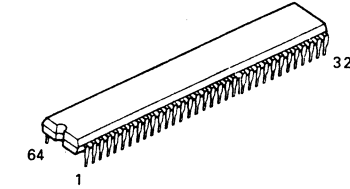
R. NO.	VER.	RDS	D	A
R31	2K7	2K7	10K	
CF1	10.7M5	10.7M5	10.7M5	
CF3	10.7M5	10.7M5	10.7M5	
F-END	FT44-460H	FT44-460H	FT44-556H	
J1B	X	X	X	
J3	X	X	X	
R. NO.	VER.	RDS	D	A
R26	47K	47K	18K	
R35C	1K8	1K8	J27	
R46L	220K	220K	120K	
R46R	220K	220K	120K	
R47L	270K	270K	180K	
R47R	270K	270K	180K	
C37C	82P-R	82P-R	X	
C38C	100P-R	100P-R	X	
C50L	220P-R	220P-R	560P	
C50R	220P-R	220P-R	560P	
C62L	10P-R	10P-R	68P	
C62R	10P-R	10P-R	68P	
R36D	47K	J25	J25	
R38D	1K	X	X	
C40D	22N	X	X	
R37D	22	X	X	
CF2 10.7	J26	J26	J26	
Q7D	C1740	X	X	
L1C	20.8M	X	X	
C36			330P-R	

**NOTES**  
1. Resistor values are indicated in ohms unless otherwise specified.  
[K=1,000 M=1,000,000]  
2. Capacitor values are indicated in microfarads unless otherwise specified.  
[p=micro-microfarads]  
**CAUTION**  
Safety precaution to be followed during servicing:  
1) Since those parts marked with  are critical parts for safety, use only the one described in the parts list.  
2) Before returning the set to the customer, make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

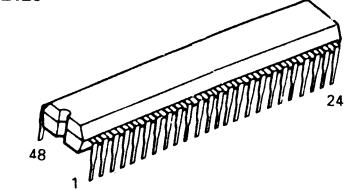
**Model No. : R-725/RDS · AV-725**



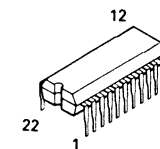
LV1000A



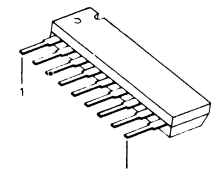
SSM-2126



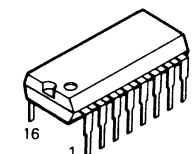
LA3401



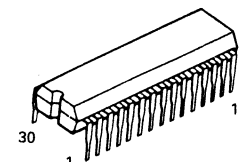
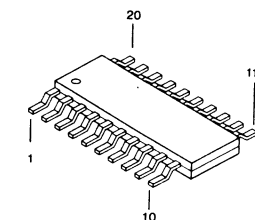
TA7291S  
KIA4559



LC7073 BA7625  
MC14053 TC9299  
MC14094



LC7821


LM7001/M  
TDA7330BD

**NOTES**

1. Resistor values are indicated in ohms unless otherwise specified  
( $\times 1.000$   $M=1.000.000$ )
2. Capacitor values are indicated in microfarads unless otherwise specified.  
( $\mu=micro-microfarads$ )

**CAUTION**

Safety precaution to be followed during servicing

1. Since those parts marked with the electrical safety symbol  use only the ones described in the parts list
2. Before returning the set to the customer make appropriate leakage or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

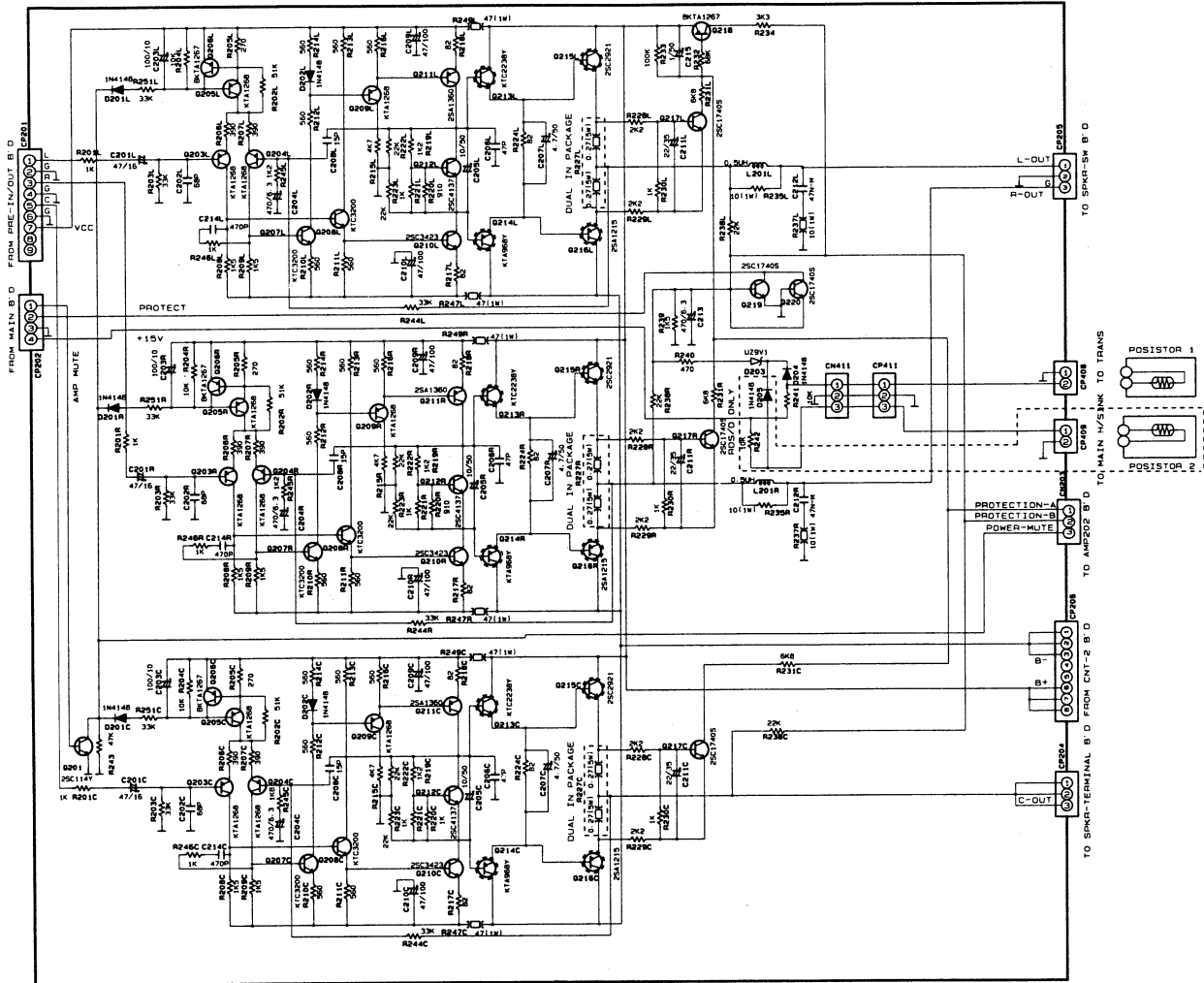
	F101, F102
USA, CANADA	NB 1A 125V
EUROPE	T 1A 250V
KOREA, ETC	NB 1A 250V



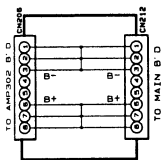
# SCHEMATIC DIAGRAM (III)

Model No. : R-725/RDS · AV-725

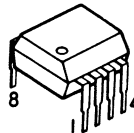
PCB3 (AMP 302)



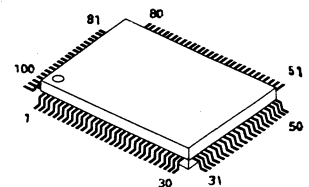
CNT-2 B'D



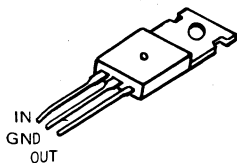
KIA4559P  
NJM2068D



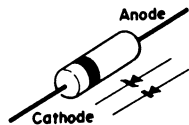
CXP82840



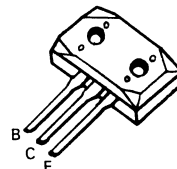
KIA7806/GD7806  
KIA7815/KIA7915  
2SA1859A/2SC4883A



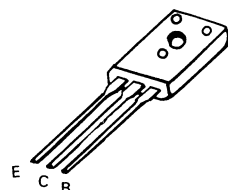
ZENER DIODE  
IN4003  
IN4148



2SA1215, 2SC2921



2SA1360 2SC3423  
2SC4137



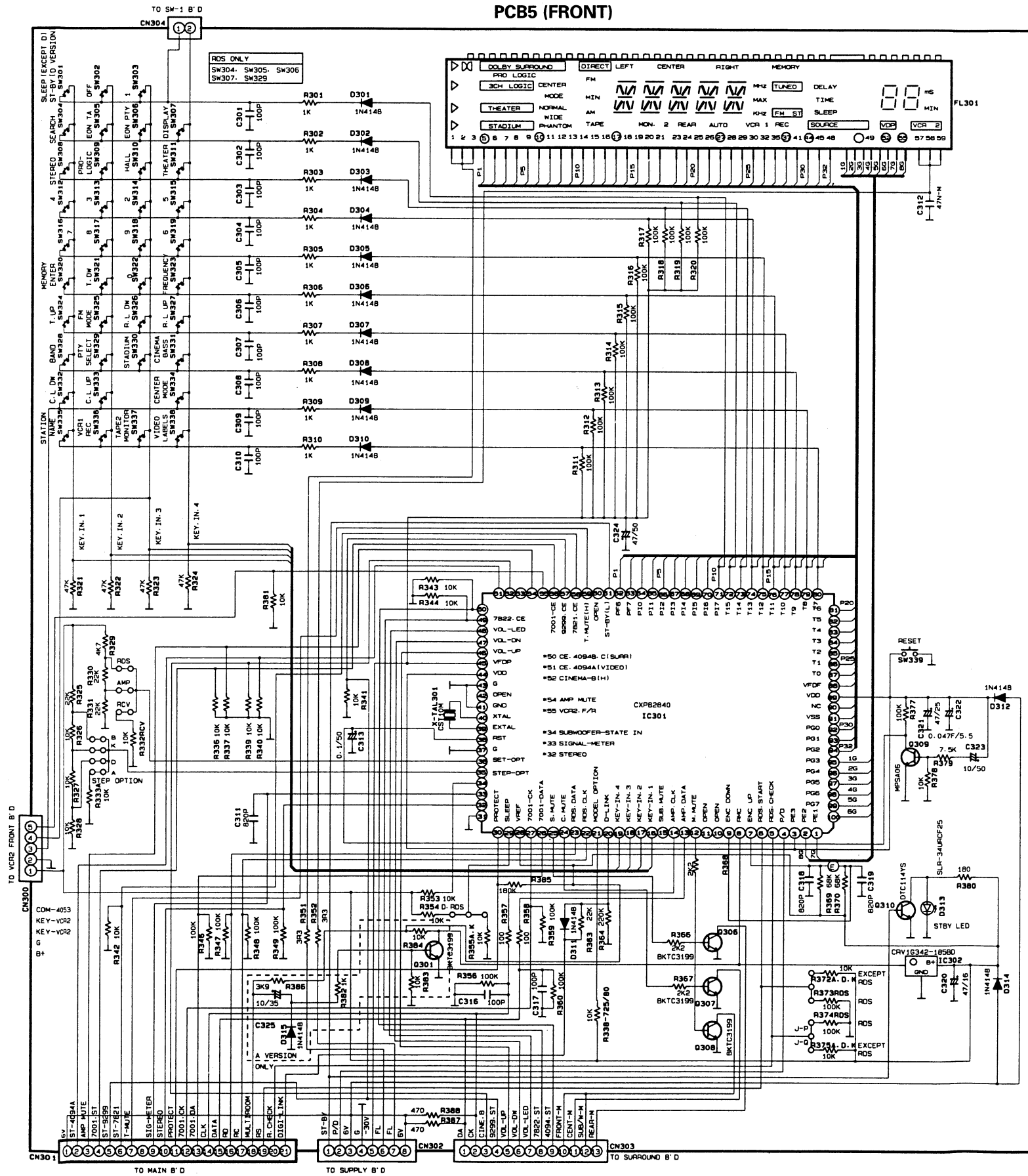
**Model No. : R-725/RDS · AV-725**

The schematic diagram illustrates a 4-channel audio amplifier, consisting of two identical left and right channels. Each channel is a balanced design, featuring a differential input stage with two input channels (e.g., IN148, IN149 for the left channel). The input stage is followed by a series of gain stages, including a 2N2005SL/2N2005SR transistor stage and a 2N2005SL/2N2005SR transistor stage. The output stage is a push-pull arrangement using 2N2005SL/2N2005SR transistors. The output of each channel is connected to a speaker terminal (e.g., SPEAKER TERMINAL B'D, SPEAKER TERMINAL B'D). The power supply section includes a +VCC and -VCC rail, with a 2N2005SL/2N2005SR transistor stage for regulation. The output of the power supply is connected to a speaker terminal (e.g., SPEAKER TERMINAL B'D, SPEAKER TERMINAL B'D). The diagram also shows a 2N2005SL/2N2005SR transistor stage for the power supply, and a 2N2005SL/2N2005SR transistor stage for the power supply. The output of the power supply is connected to a speaker terminal (e.g., SPEAKER TERMINAL B'D, SPEAKER TERMINAL B'D). The diagram also shows a 2N2005SL/2N2005SR transistor stage for the power supply, and a 2N2005SL/2N2005SR transistor stage for the power supply. The output of the power supply is connected to a speaker terminal (e.g., SPEAKER TERMINAL B'D, SPEAKER TERMINAL B'D).

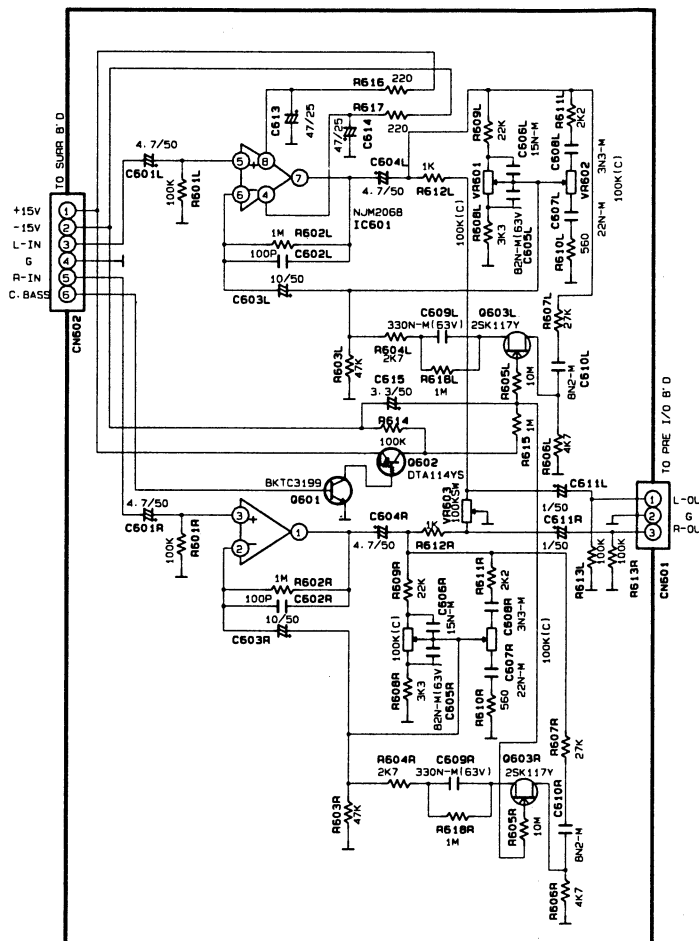
45

### SCHEMATIC DIAGRAM (V)

### PCB5 (FRONT)

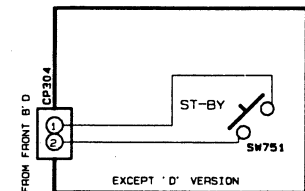


### PCB6 (TONE)

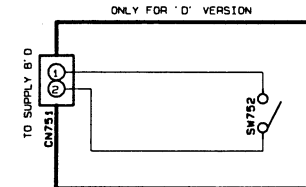


**Model No. : R-725/RDS · AV-725**

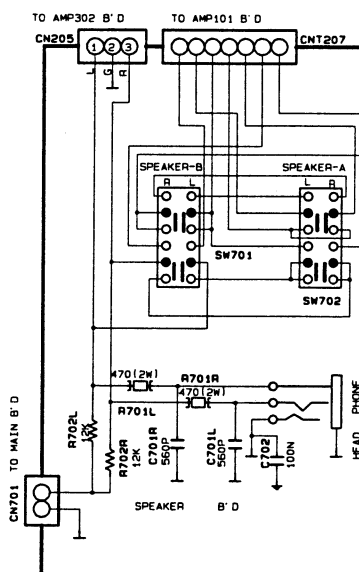
**SW-1 B'D**



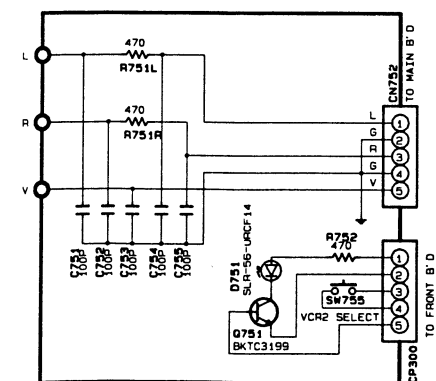
**SW-2 B'D**



**PCB7 (SPK S/W**



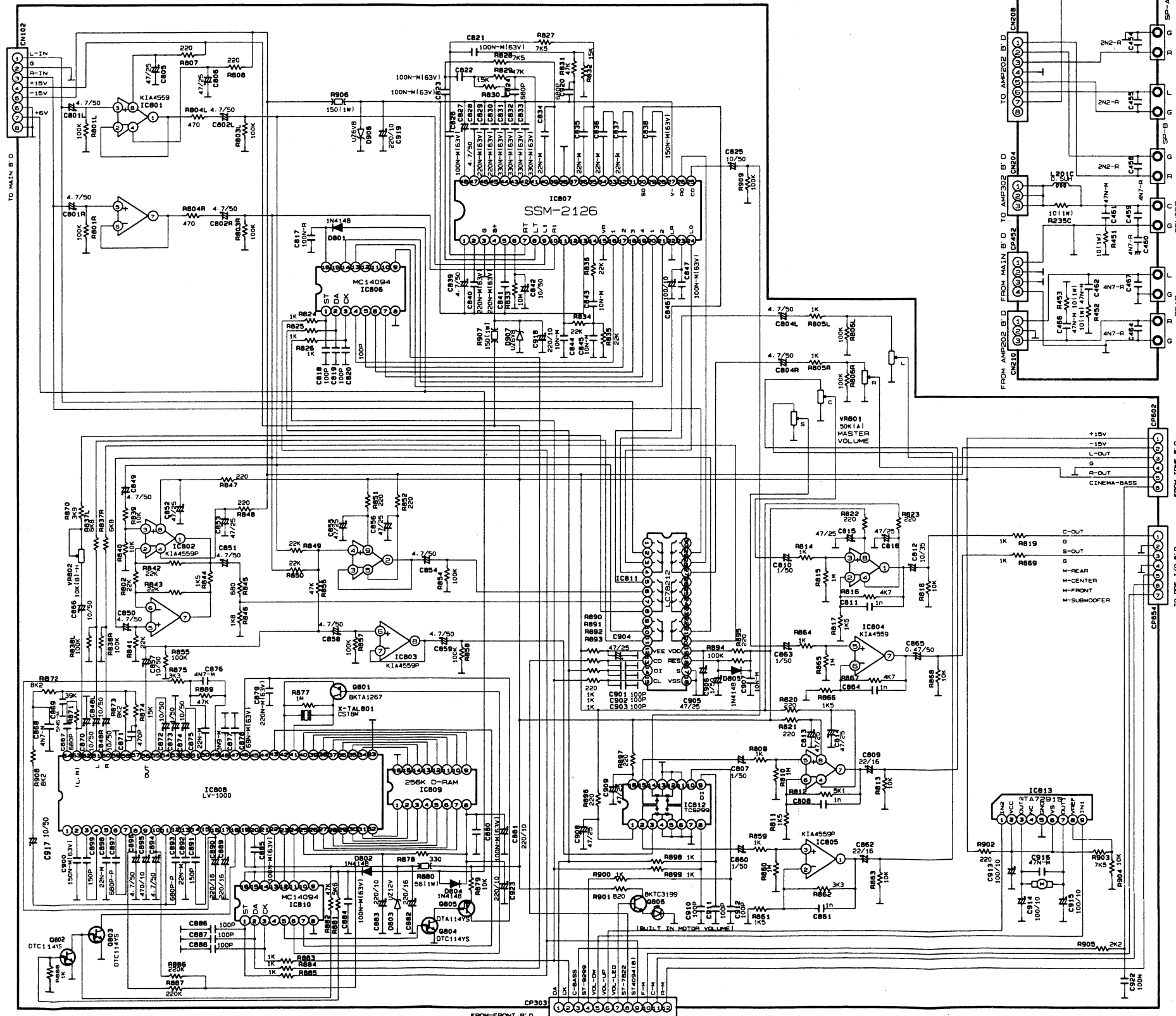
### PCB8 (VCR2 FRONT)



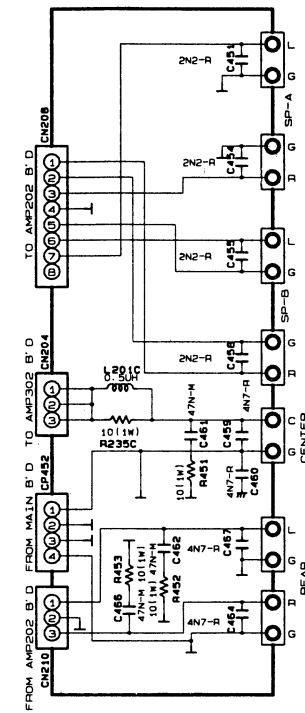
### SCHEMATIC DIAGRAM (VI)

**Model No. : R-725/RDS · AV-725**

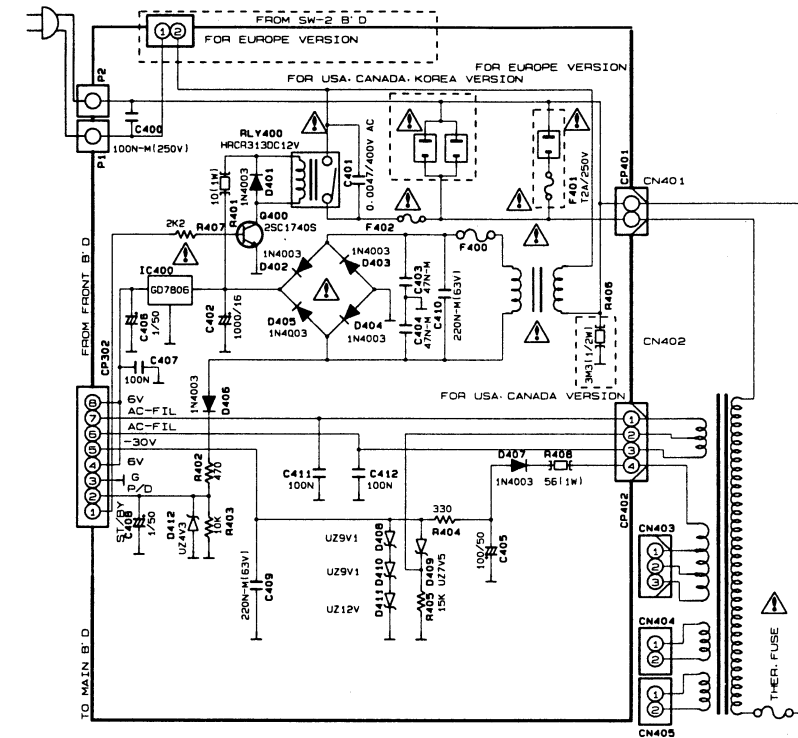
### PCB12 (SURROUND)



### PCB9 (SPK TERMINAL)



**PCB10 (SUPPLY)**



	F 400	F 402
USA· CANADA	NB 350mA 125V	SB 10A 250V
EUROPE	T 500mA 250V	T 6A 250V
KOREA· ETC	NB 500mA 250V	NB 6A 250V

**PCB11 (PRE IN/OUT)**

